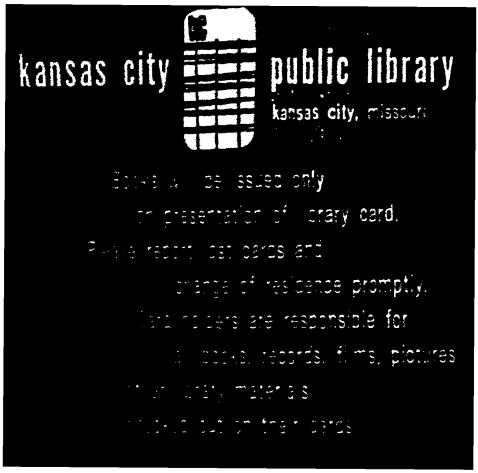
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ANTONIO STRADIVARI.



HORACE PETHERICK.

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ANTONIO STRADIVARI,

BY

HORACE PETHERICK.

Of the Music Jury, International Inventions Exhibition, South Kensington, 1885, International Exhibition, Edinburgh, 1890, Expert in Law Courts, 1891, Vice-President of the Cremona Society

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PREFACE.

IT was in the month of April, 1898, when THE STRAD monthly magazine had completed its eighth year of issue, that the Editor suggested that then might be an appropriate time for giving a biographical sketch of the great Cremonese master in serial form, expressed in a manner interesting and instructive as possible. With this view I took up the subject with some enthusiasm and proposed to work upon lines which I believed to be bound by truth. All references to peculiarities in connection with Stradivari's designs, construction and purposes should be the result of my own personal observation during many years of experience as connoisseur and expert. In formulating my results of study of a great number—possibly the majority—of the instruments of the master extant—I have abstained as far as possible from using technical terms not readily comprehended by a reader coming newly to the subject, and I trust all persons reading through the matter now collected, added to, and presented in book form, will find their time not mis-spent at least when they arrive at the conclusion.

HORACE PETHERICK.

Croydon.

INTRODUCTION.

IT was during the second half of the sixteenth century that the violin, with its well recognised combined excellences of artistic form and musical sonority, was started on its way in the world to supply a want and prove its fitness as a leading instrument at once and for future times. So happily was this effected, so complete and mature was it in conception, that the advancing intellect of three centuries has proved incompetent to insert any fresh and permanent addition to its original simple arrangement. Precisely as it came from the hands of an artistic and inventive genius in the city of Brescia so we have it now, unchanged in its essential details of construction, although having its natural qualities made more evident after undergoing the modern adjustment with regard to accessories of detail, or regulation as it is termed. This has been effected by simply enlarging some parts for the purpose of allowing more freedom and convenience in the execution of more modern music, its elaboration of rhythm, besides the extended range of notes in the higher positions of the register, necessitating this. As might have been expected in connection with the then still living Renaissance period, on the violin making its appearance it was soon taken in hand by men of superlative talent, who stamped it with their own individuality in which was a marvellous perception of artistic quality. All that was to be

done by means of proportion, form and colour, not setting aside the essentials of refined sonority, were combined, each aiding in the grand total and producing that known and so much sought after at the present day—a beautiful Italian violin. For about a century or more many Italian liutaros were busily engaged in sending forth under competition works which are now by the cognoscenti treated as unrivalled excellence of quality, classical, and the outcome of genius. Each worker being anxious to maintain the standard of excellence, or take a step forward in the practice of their art, the culminating point seems to have been reached when the artist under consideration in the following pages was executing his masterpieces in Cremona.



ANTONIO STRADIVARI

ANTONIO STRADIVARI.

CHAPTER I.

DATE AND PLACE OF BIRTH OF ANTONIO STRADIVARI—HIS INSTRUCTOR IN THE ART OF VIOLIN MAKING—PECULIARITY OF HIS EARLY WORK, NOTHING STRIKING, BUT SLOWLY PROGRESSIVE—WHICH OF THE DESIGNS OF HIS MASTER HE WAS MOST IMPRESSED BY, AND HIS OWN MODIFICATIONS FOR IMPROVEMENT—HIS DEPARTURE FROM THE HOUSE OF HIS MASTER, FREE TO CARRY OUT HIS OWN INCLINATIONS.

THE year 1644, although not particularly noticeable at the time for its portentous events, was destined to be one of considerable interest to those who are enthusiastic lovers of the delightful quality of sound emitted by a certain section—and that only—of a class of stringed instruments which have made the city of Cremona famous throughout the civilised world. For in that city and in that year was born a male child, whose surname was eventually to eclipse by its own refulgence the renown of the city itself. Its paternal name was Stradivari, people trouble themselves very little about the prefix Antonio, common enough in Italy, and which was the Christian name given him by his parents. Of these we can only say, that as might be supposed, they were of a respectable portion of the middle class socially considered and from which have sprung all over the

world—with few exceptions—the greatest luminaries of the whole firmament of intellect.

Of his private life during manhood we know very little, of his boyhood nothing. But we may fairly and truly draw our conclusions that as the time arrived when he was supposed fit for training to fight life's battle, he had already exhibited talent indicative of fitness for that artistic branch of industry in which he was hereafter to be the world-wide acknowledged head.

That his special abilities were thoroughly recognised by his parents receives much emphasis from the fact of his being offered to, and received as pupil by, Nicolas Amati, greatest of that great family of stringed instrument makers. Young Antonio was thus placed in the most favourable situation possible for the fructifying and development of his own particular talents. That portion of his life which was spent with the great master of line in violin facture, will, probably, in its details always remain a blank to us: but there is a lightning like flash thrown out by the fact of old Nicolas Amati bequeathing his collection of tools, patterns, etc., to Antonio Stradivari, and, be it noticed, not to his own son, then over thirty years of age. That the future master of his craft had been a steady and beloved pupil of his great teacher, there is no room for doubt; indeed, steadiness, fixity of purpose and honest intention, are manifested in his work during the whole of his career. The earliest of his handiwork has become known to us while he was with Nicolas Amati. In this he exhibits extreme delicacy of handling, and seemingly, in the confidence of his master, certain little modifications in the design of the sound holes were permitted, or perhaps passed as improvements, but there is nothing eccentric or extravagant introduced, a gentle addition, or a trifle less here and there, being the way in which he ever cautiously worked out his idea of improvement, and this latter seems to have been the moving spirit during his whole life.

At no time do we meet with sudden departures, or what are sometimes termed flashes of genius—the on-

ward progress of his style of design and its execution was as unimpassioned as his life was uneventful. When we examine the earliest known work of his hand—it may be observed on some of the late violins of his master—there is plainly perceptible the efforts at excelling where at all possible; and if, as is extremely probable—his master was sometimes desirous that the purfling should be somewhat bolder than was to the taste of his refined pupil, this was inserted with a delicacy and precision beyond what had been before deemed the acme of finish.

His departure from the house of Nicolas Amati had to be taken some day in the ordinary course of events, and he would then act alone in competition among the growing swarms of makers who were now busy as bees in most parts of Italy. The start is generally reckoned to have occured between the years 1664 and 1666, it may have been in 1665, when he had reached his twenty-first year.

That old Nicolas Amati was right in his estimate that young Antonio Stradivari's natural abilities augured well for his success as a liutaro, was now to be proven. With the best possible recommendation—that of being trained by the most distinguished maker of the city—he carried others no less necessary for the long course of thought and labour that he was about to enter upon. These were, an earnest desire for improvement in all his undertakings, natural, indigenous ability for tasteful design and its mechanical execution and the power of steady concentration of the faculties, backed up withal by a sound, physical constitution in which "nerves of iron" must have been a conspicuous element.

To those who at the time may have been looking forward with some speculation as to what young Stradivari would put forth now that his course was free and untrammelled before him, there was probably some disappointment at finding no signs of striking originality, no spasmodic struggles of genius to assert itself by throwing aside those individualities, general and detailed, which were so well marked in the work of his great teacher,

and which as pupil he had been studiously and conscientiously carrying out. On the contrary, his efforts seem to have been rather to draw the mantle thrown by his master closer around him than to dispense with any part of its protective power. Thus we see in his works of this period which have remained to us, very little more than replicas of those of his master in which he for some years perhaps had taken no inconsiderable part. But in doing this, the intention and power of selection guided by sound judgment at once asserted itself. He did not take that pattern known to us moderns by the name of "grand," and which term was in all likelihood quite unthought of by either himself or his master. Who invented it is a question that may be left complacently to the bookworm of the future.

There is really nothing in the so-called "grand" pattern of Nicolas Amati that seems to agree happily with that title, it is, on the other hand, one in which the love of dainty elegance of contour has been allowed almost unrestricted play by its author, and to an extent undreamt of before. He perceived, however, that there was a limit, a step further, and disaster would be certain; Nicolas was sufficiently wide awake not to take it, but left it for his hosts of imitators, many of whom, not gifted with the same perspicuity, "rushed in where angels fear to tread," their just reward being laughter and derision. The attainment of elegance at the expense of strength and stability was not at all in agreement with Stradivari's artistic tastes, and we accordingly have no evidence of his having touched the so-called "Grand Amati;" that which he did take up with was less complex in the subdivision of its curves, and a more simple looking thing altogether. To him it may have seemed to have more of the true characteristic quality always accompanying the grand in art, that of simplicity. It was this pattern, and this only, so far as our information goes—that Stradivari took as the basis on which any future developments should be grounded. He worked upon it for some time seemingly to his own contentment.

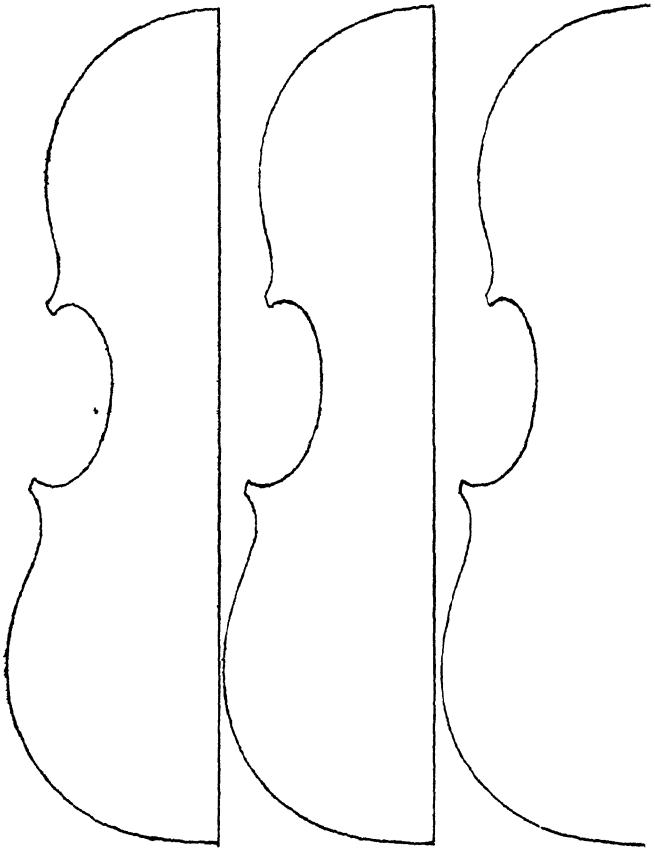


THE HOUSE OF ANTONIO STRADIVARI.

and probably the satisfaction of his patrons, these being sufficiently numerous and influential to enable him ere many years had passed to think of purchasing a house.* This he accomplished in the year 1680, when he was thirty-six years of age. Now be it noted Stradivari had been working on the simplest of Amati patterns for fourteen years, and during that time from his steady industry the number of violins, besides other instruments of the family, which left his atelier must have been very large. The similarity in type and regularity of excellence in finished workmanship was almost enough to have impressed the connoisseurs of the day that there was no originality or speculation in the maker, but it was just about this time that the independency of thought began to manifest itself; it was almost as if the acquisition of the freehold property had stimulated the self-reliance which had no doubt always been present, but which was now to show itself more clearly in his art. He had been in practise long and successfully enough to give a right claim to mastership. The veteran Nicolas Amati, who was now over eighty years of age, had probably been doing little or nothing for some time, and so his pupil, with all his admiration for the retiring chief, felt at full liberty to do really as he liked.

The step he took, insignificant enough to the casual observer now, must have been equally so then, but proved one of the most important ever taken in this branch of art, considering the restraints necessarily encompassing any efforts at original design. This is perhaps the more evident when the main features of the Amati designs and others of the time are analysed. It will be seen that the upper and lower thirds of the design have much in common with each other, and that the middle or waist partakes also of the same characteristics, the whole being a series of full rounded curves, varied

* Our illustration of this house is from a photo. It will be noticed that it has not an imposing exterior and not much indication of the more spacious premises in the rear where the great master worked.



No. 1. No. 2. No. 3.

No. 1. Grand Nicolas Amati of Stradivari. No. 2. Nicolas Amati pattern. No. 3. First independent pattern of Stradivari



STRADIVARI'S WORKSHOP

as required, to harmonise and flow with ease and grace to the squared corners. The slightest possible narrowing or decrease in the size of the upper of the waist curve and a corresponding enlargement of the lower part, served in the hands of Stradivari to impart a different aspect to the whole pattern. The waist, now less pinched in at the middle, looked longer without being really so. The parts above the upper corners and those below the lower ones were modified, the large curves becoming a little flatter just before blending with the smaller ones. From these alterations, each one trifling in itself, there resulted what may be called the first or earliest Stradivari pattern; in it were the germs of all the succeeding ones that contributed more and more to the fame of their designer as they appeared. The natural caution or indisposition to throw aside one pattern before a fair trial of the newest had proved acceptable to his numerous patrons, was possibly the cause of Stradivari's running the older designs alongside the newest creations of his fancy. Thus we find that mixed with the innovations are what he might have called his old Amati pattern, probably off the same moulds that he had used when first starting in business on his own account, or even before.

[Our illustration of Stradivari's atelier is from a painting by Rinaldi, the sketch for which was made on the premises The church of St. Domenico, Cremona, was demolished some twenty years since and our illustration is from a photo taken just before the event. The Chapel of the Rosary, being the place where Antonio Stradivari was interred, is the one below and to the right of the tower and lighter in colour than the others.]

CHAPTER II.

DETAILS OF FURTHER IMPROVEMENTS UPON HIS NEW DESIGNS—MODIFICATION OF THE SOUND HOLES—THE AMATI VARNISH AND STRADIVARI'S—HIS SECRECY OF METHOD IN WORKING—HIS KNOWLEDGE OF WHAT WAS WANTED, AND EFFORTS AT ADVANCE IN TONE QUALITY.

LEAVING the consideration in general of the designs of Stradivari's early days, that is, for such a long life, we may look over some of the details. It is well known to connoisseurs that the handiwork of Nicolas Amati was during his best days of the utmost delicacy; in his later work we notice an approach to heaviness in some respects. The very beautiful subdivisions and subtleties of the curves in pattern and modelling began to disappear and the purfling became bolder. Young Stradivari, when working on some of his master's violins, seems to have been allowed to do some of this, probably with the material given out by old Nicolas. The work of the young man may be known by its greater decision, such as would be reasonably expected; but after leaving the Amati household the natural bent towards exceeding refinement soon asserted itself. The purfling, particularly after some years, is narrower, and inserted with a precision and ease in its course impossible to excel, even if approachable. The mitring at the corners ends in a bent point in the manner introduced by Hieronymus Amati and not, as has been stated, by Stradivari; the latter carried out the ideas of

Nicolas in making it very sharp and this mannerism he continued throughout the whole of his career.

Stradivari from the first made his sound holes more perpendicular than those of his master; after leaving him, they also became more slender and the upper and lower wings wider and closer to the opposing curve. The precision and sharpness of the cutting of these parts has become the standard of excellence to which hundreds of Stradivari's imitators of different countries and times have striven to attain. It is, perhaps, in these parts of the different instruments—for Stradivari soon got to work on all the four sizes, besides other kinds not played with the bow—that his fine nervous system manifests itself, the sureness of his knife when passing along from one point to another leaving an edge upright and clean as cut glass, yet with a free grace of line never excelled by any master of the renaissance period.

Of the parts the young assistant of Nicolas Amati was allowed to put his individuality to, conspicuously stands the scroll. The one typical of Nicolas's later days, although free and elegant, yet had a somewhat heavier touch about it, possibly the master was gradually losing his muscular power, more necessary to exert in this matter of detail than any other. Stradivari began his own type by bringing the first turn from the axis or "eye" a little higher up than that of his master; the axis itself is a trifle larger and flatter, the edges of the turns are squared off with a machine-like exactness that does not interfere with the ease and flow of line. The peg box is strong and ample, after a few years it became massive, more so occasionally than is to be met with at any other time, the grooves down the back are not so deep, the termination or shell likewise and a little wider.

That Nicolas Amati would by any possibility neglect to duly initiate his favourite pupil in the mysteries and secrecies whereby his work should receive its final crowning adornment, its envelopment in the thin film of glory, is not to be thought of. The lustrous solution

that was so fitting an accompaniment to the dainty designs of the Amatis, was from the first handled with a masterly dexterity and perfect knowledge by Stradivari. Most of the early work is covered with the orange or amber colour that were the prevailing tints on the early productions of the brothers Amati as well as Nicolas. It is somewhat curious that most of the prominent varnishers among the liutaros of Italy seemed to prefer this in their early days: or was it that the deeper or more intense colours required longer experience in management? Anyhow, so it was, and Stradivari seems to have been no exception to the general rule. If a well preserved early Stradivari is placed side by side with one of "the brothers" or Nicolas Amati's amber coloured specimens, the varnish enveloping them will be seen to be precisely alike, whether considered in respect of transparency, consistency or thickness. Here is an indication that for the best part of a century, these clever artificers of Cremona had the same stuff, used it in precisely the same manner, to a hair's breadth, for they knew there was no going beyond it; every part of the process was methodically carried out in compliance with certain laws known to, or instituted by, previous masters. There is an old Latin motto implying that "the perfection of art is to conceal art"; —it has often been quoted in illustrative reference, sometimes with sly humour, at others in most serious vein, for instance, when an eminent judge's judicial wig was known to have beneath it another of equally natural pretentions, and when quoted as the motto for the year in a Royal Academy catalogue, to be interpreted by the noble army of "rejected outsiders" as meaning extra efforts that year by the Council at concealment or suppression of art that was superior to their own.

But if there ever was an instance in which this motto could with strictest appropriateness be applied, it was the work of Stradivari. Most if not all of the known masters have at times shown by some little accident or other, their method of working, thus, notwithstanding the

extremely careful and finished work of the Amati family, there is occasionally to be seen some unobliterated signs —truly very slight—of their having traced their pattern on the wood for either the sound holes or the turns of the scroll. Stradivari left no evidence of this, nor are any distinct traces left inside or out that would betray the manner, kind of tool, or direction of working. Further, in most beautiful specimens by the "brothers Amati," besides other great varnishers, some faint indications have been seen of imperfectly dissolved resin, but not so with Stradivari, who carried out to the letter in this department of his art, that steadfastness of purpose in striving to do in the best way, that which his judgment had pronounced to be the best thing to accomplish. He further carried this out afterwards in the application of the deeper coloured, and usually softer varnishes, which when manipulated by other masters of the same school, have frizzled or cockled from some cause. This is seldom if at all to be observed in any of Stradivari's work, he seems to have taken every possible precaution for preventing change in aspect after the instrument had received his final touches.

We may now retrace our steps for awhile and take up another thread of the fabric of Stradivari's individuality, that which is in fact by dealers ignored and by players adored. There can be no question that during his minority under the great Amati, young Antonio must have been much interested in his master's fame for imparting a fine quality of tone to his instruments. It must soon have been apparent to him that success in his career would not be achieved by progress in the artistic part of his work alone. The critics of the day, who must have been sufficiently numerous and exacting in accordance with the advanced state of the art, would naturally be alive to any subtleties of difference between the productions of the reigning king of liutaros and his successor. The onward progress of musical composition and increase in the numbers of public performers, virtuosi, and others, demanded from

an artificer taking this position, at least equal skill in producing those essential qualities for which the city of Cremona had become famous. Old master and young man probably had many a talk over what was best to be done to keep pace with the increasing requirements of the moment, and the time approaching when the hand of the former in the course of nature would lose its cunning. The hour came, the man was ready. Stradivari started forth from his master's house with full confidence in having a true and good grasp of the wants of the moment and those looming in the future. In the good patronage which soon came to him, was contained the assurance that his estimate, although formed so early, was perfectly correct; thenceforward he saw no reason for alteration in the type of acoustical quality that distinguishes all of his instruments, and that which he had once for all fixed upon.

Briefly the acoustical quality of his instruments may be described as a further development of the tone brought to such a high degree of excellence by the great Amati; an increase in the volume and energy, with more equality of scale, while retaining all the other qualities that had caused players and listeners alike to be delighted, and which had given such renown to the great family of liutaros in Cremona.

CHAPTER III.

THE DATE OF THE TRUE STRADIVARIAN INDIVIDUALITY—ALTERATIONS IN DESIGN—PROPORTIONS SETTLED FOR GOOD—THE EXCEPTIONS—THE "LONG STRAD"—THE "INLAID STRADS"—AN ACKNOWLEDGED MASTER OF HIS ART—BLACK EDGING—THE ARCHING AND CHANNELLING—THE BRESCIANS, THE AMATIS AND STRADIVARI.

WE now resume our consideration of the progressive development of the Stradivarian design as exhibited in the instruments of 1680 to 1690 or a little later. At the earliest of these dates the complete independency or self consciousness of power, as a master liutaro, is already perceptible. There is no possibility of these violins having been made on the moulds used during his bachelorship. People sometimes speak of these instruments as being "Amatisé," which is great nonsense; had Stradivari died somewhere between 1680 and 1690, they would have been rapturous in their admiration of his originality and widely separated ideas from those of the Amati, but as he lived many years on and gave forth many more manifestations of his own individuality, the likeness of these 1680 and 1690 to old Nicolas is eagerly searched for and often supposed to be evident. It was at this time that Stradivari probably made more new moulds or blocks on which to construct, than at any other. With some few exceptions those that were now being made could be used for any of his violins during the remainder

of his career. The average proportions remain the same, the differences are minute in measurement, notwithstanding their effectiveness in helping to a different expression in the designs. The exceptions referred to and made between the above dates are of a diverse kind. There is the well-known "long Strad," of which one author has said that it "has received the title," "not from increased length, but from the appearance of additional length which its narrowness gives it, and which is particularly observable between the sound holes." The actual measurements of this pattern are, length $14\frac{3}{16}$ inches by greatest width 8 inches bare as contrasted with the ordinary 14 by $8\frac{1}{8}$; it will therefore be evident at once that there is a positive increase in length, and a decrease in width. These violins are not very rare as compared with the total work of Stradivari extant. Another variation, but now very seldom seen, is a pattern that may be said to be somewhat opposite in its tendencies, as it is a trifle shorter, but of full average width, with a proportionately wider waist. This type of violin must have been sufficiently plentiful at one time, as one of the first Gaglianos made a deliberate copy of it; that is, so far as his Neapolitan idiosyncrasy and pride would permit. Besides these were the "inlaid Strads," instruments of the greatest beauty in all respects, but having instead of the ordinary purfling a broad black fillet and diamond or lozenge shaped ivory insertions alternated with smaller circular ones; they are further embellished with a floral inlaying round the sides or ribs and also on the sides and back of the scroll. These instruments — Stradivari is known to have made a quartette of them for the Spanish court—are of the greatest rarity. They are said to be all known, but this statement seems open to question when coupled with the assertion that Stradivari made other similar but very small violins. The known ones are of very full size, the parties ordering them at the time possibly being alive to the advantages of quantity as well as quality. Public opinion since the time these were made has not grown in

appreciation of the additional ornamentation. The violin pure and simple, with its single line of purfling only as it left the hands of the first master of the art of Brescia, is the one which has found the most lasting favour with connoisseurs and the public generally. Decorative additions, in various and more or less eccentric or extravagant styles, have been introduced from time to time by enterprising liutaros of different countries, but the discerning portion of the public will have none, and thereby pronounce the violin to be an unfit subject for extra clothing; beauty unadorned, adorned is most, is a figure of speech quite applicable to the simplicity of the violin as a work of art.

Stradivari, who had now acquired—at the period 1680-90—a standing as an acknowledged master of his craft, showed in his handiwork a decided leaning in consonance with this, as—excepting these "inlaid Strads"—he carefully refrained from introducing any of the little tricks, or fanciful alteration of details, that so many, even of his own countrymen, seem to have been led to affix to their productions. After all, the "inlaid Strads" were probably so made, not at their maker's suggestion, but by desire of the patrons holding a high social position. Double purfled violins seem never to have left his hands, as none appear to be extant and no mention is made of any.

There is one particular part of the finishing of the violin which calls for remark, and in the absence of evidence to the contrary must be put to the responsibility of Stradivari. This is known as the "black edging." It cannot come properly under the term decoration, as it has no variety in its management and consists only of the blackening of the squaring off of the junction of the ribs; likewise at the edges of the turns of the scroll and continued down the front and back of the peg-box to the shell. Its first appearance is not possible to determine and will probably remain unknown. Nicolas Amati did not introduce it, his work being of the kind that had no accommodation for it.

Once begun, however, Stradivari seems to have persistently held to it. There is no proof positive that it was henceforth his invariable rule to put this kind of finish. The parts concerned are the first to receive and show signs of wear; therefore an instrument must be very fresh indeed to have much "black edging" left. Viewed from an artistic standpoint it cannot be considered an improvement, or any adornment, for, however neatly it is executed, the work of hand beneath is more or less obscured. Further, the eye of the connoisseur is distracted by it, and the neatness of the work is not seen to advantage until the black has become nearly effaced. Other makers of renown, besides Stradivari, adopted this method of putting the final touches to their work, Giuseppe Guarneri, I.H.S., Carlo Bergonzi, and other later makers, among them Storioni.

Concerning the rise of the arching, or modelling of the periods above referred to, there has been much erroneous supposition in connection therewith. That all the early "Strads" were of high build, that the progress was gradual towards the "flat model," that Stradivari was feeling his way and becoming enlightened as to the necessity of reducing the arching in order to obtain a fuller and more telling tone with better ring; further, that the channelling or "scooping" near the border was gradually reduced for the same reasons, and that these things did not reveal themselves at once, but gently dawned upon his perceptions; moreover, that he earnestly communed with nature, made numberless experiments concerning her acoustical and other mysteries, and that the outcome was faintly looming in the horizon and soon was to blossom forth as the golden period, with grand pattern, all of which is really nothing more than grand "tomfoolery" spread abroad a generation since by critics "having an eye" only to such things that seemed to them agreeable with the conditions and surroundings of money getting commodities.

These worthies were forgetful of the fact that the different varieties of flat and high model, channelling

deep or none at all, long waists and short waists, sound holes long, short, near or wide apart, had been well, if not exhaustively treated by the artists of the Brescian school. To assume that those refined artificers, the Amati family and their disciples, were not conversant with everything for or against the use of a flat model would be crediting them with but little mental capacity, particularly in respect of their perceptive faculties. Both Stradivari and his teacher must have been well acquainted with the different high and low modelling of Gasparo da Salo, as well as that of his pupil Maggini, and others. He must have been aware that his own most generally used model of medium elevation, with slight exceptions both ways, was anticipated by each in turn. This, by the bye, disposes of any theory that Stradivari's distinctive quality of tone resulted, as is often stated, from his adopting a different elevation to what had been in use before. It may be fairly argued that if it had been true, as some writers have stated, that the flatter the model the better and stronger is the tone, then Stradivari would have been less gifted with sound judgment than he has been hitherto credited with; some of his early modellings, 1680-90, being as flat, if not more so, than any known during his whole career. For his selection of the particular degree of rise the reasons—for there were several—are not difficult to assign:—firstly, it was in consonance with his effort at achieving the most harmonious result—artistically in his designs; the less determined rise in the arching being more agreeable with the disposition of line in the pattern that he had been settling down to—posterity has emphatically endorsed his views in this respect; secondly, having noticed that a more shallow curve in the arching was quite favourable for the exhibition of gracefulness, while it was accompanied by more strength and permanency, with less liability during time and usage to develop a stony or bumpy appearance. But while thus looking acutely forward to future eventualities in one direction, Stradivari was no less careful

to avoid reducing his model too much. Knowing the soundpost would be certainly shifted occasionally, he saw in the very flat model a source of danger lurking in the difficulty of seeing and getting at the post, even with the usual appliances at the command of the professional repairer or regulator, while the sound holes would be much more liable to damage than when the sufficiently raised arching permits a fair use of the "post setter." He was also careful, while keeping the depth and width of the channelling within reasonable bounds, not to let the arching spring or commence too near the border, as the screw cramps of the repairer, especially the large sized ones used in olden times would, unless most skilfully and cautiously applied, soon register the progress of the repairer on the varnish to the destruction of the beauty of appearance as a whole. These, then, appear to be the cogent reasons for the adoption of the medium rise in the modelling by Stradivari.

CHAPTER IV.

LESSER KNOWN PATTERNS OF STRADIVARI — THE TREATMENT OF THE SCROLL BY HIM, THE INDIVIDUALITY AND MATURING OF THE STYLE—THE PURFLING.

DURING the period of 1690-1700 the modification of parts of the pattern and details was slight but nevertheless important. Occasionally the upper corners drooped a little more, and when they are now seen in fine preservation seem rather long in comparison with later ones, but they are not really so, it being in the expression no doubt arising from the greater robustness in the treatment of the corners which now were becoming in aspect more square, but with the usual peculiarities retained. There was also about this time another modification sent forth, a pattern that has the waist curve narrowed in a trifle at about two-thirds of the way upward, causing a slight suspicion of a wish to return to his old Nicolo Amati period, but it seems to have been only momentary, and beautiful as these violins are, they do not appear to have been repeated. They are in consequence very rare.

Accompanying these little variations there was a slight change in the treatment of the scroll; it became less massive, while all the principal features of detail were retained, the grooves at the back were deepened a little as they ran down to the shell, which last was made a degree less shallow. In the earlier part of this period the general contour has a little more flow in the disposition of line, but later on this was checked, as if not meeting with the full approval of the master, whose goal

of ambition was kept steadily in view from the first—that of introducing a design that should worthily rank as classical, and in its details and execution be such, that no weak spot or point of failure should be discernable under the closest scrutiny. The sound holes now received further attention and, it might be almost said, for the last time, as they were continued to the end of Stradivari's career with no particular or intentional modification. In length there was no alteration, but the design seems more condensed, more compact, yet slightly wider in the opening. This is all accomplished without losing the smallest touch of grace, and although firm in the extreme it has the opposite of any tendency to hard geometrical form. Stradivari seems to have had some feeling of contentment with it, for although little differences of measurement in minute particulars occur afterwards, no modification in character is attempted. He was most exact in imparting his own individuality in every instance. It is in this department of the liutaro's art that the imitators or forgers of Stradivari's work have found such an insurmountable block in the way of success. The impossibility hitherto of imparting the requisite identical expression, notwithstanding the most careful examination and tracing, constantly adds force to an old saying among dealers that "to make a perfectly successful imitation of Stradivari he must be a Stradivari himself." In this view it is obvious that a maker having the sure consciousness of possessing the power of the master would no longer make tracings of him, but bring out his own originals. Among the scores and scores of imitators, some of them having achieved considerable renown as such, the best of them have not succeeded further than giving their own impress to their tracing of the master's work. This is quite apart from their failure to reproduce the master touch in other branches of the liutaro's art.

In the composition of his purfling he had been, before the periods under consideration, somewhat unsettled, but he now seemed to have come to a conclusion that the

middle or light coloured portion, should be a trifle wider than the dark or outer portion. This was also for a permanency with but little variation. The three parts are probably of the same kind of wood, with the outer portion darkened by artificial means and not wood with its natural colour, as in so many early works. But there was no change in the manner of insertion. There was the same firm, upright handling of the purfling tool, which, as in his early period, was sent along with unerring precision and cut its way through hard and soft wood cleanly and equally well. In this respect of mechanical dexterity, the great master has had few rivals; he was apparently equally at home in subduing to his requirements a log of tough, curled maple, as in gently reducing the exquisitely refined growth of pine that was to act as a soundboard in throwing out the luscious quality of tone associated with his name. It was not always so among the most eminent of Italian liutarios. Many of them have left unmistakeable evidence of impatience when trying to overcome the resistance of the tortuously grained maple in turn with the much softer and straight threaded pine. There was a peculiarity connected with the purfling that must not be overlooked, and that is, its passing through the little pegs at the upper and lower part of the instrument, and which is most carefully attended to by modern close imitators, so that people should be convinced, if possible, that their's is the real thing. Stradivari, however, may not have conceived the idea of there ever being in the future the swarms of his imitators, who, for the last century, have been but too evident in consequence of the daily increasing admiration or even reverence for his work. It is not surprising, therefore, that for some reason known only to himself, he, on rare occasions, did not run the purfling through the peg, or to be more strictly correct, the peg was inserted clear of the purfling line. That this peg peculiarity is no point of recognition may be inferred from the fact that Stradivari's teacher, Nicolas Amati, treated it in like manner, besides several of his contemporaries.

CHAPTER V.

STRADIVARI'S GREAT SUCCESS—HIS SO-CALLED "GRAND EPOCH"—HIS PATRONS—HIS VIOLINS REPUTED FOR TONE WHEN QUITE NEW AND SOUGHT AFTER—THE HELP HE RECEIVED—HIS ASSISTANTS AND PUPILS—PARTS OF THE WORK REQUIRING HIS INDIVIDUAL TOUCH—THE MEMBERS OF HIS FAMILY WHO MAY HAVE ASSISTED HIM — STRADIVARI'S VARNISH—HIS IMITATORS.

THE period 1700-15 or thereabouts, found Stradivari not only an acknowledged master of his craft but among his contemporaries recognised as the head. His business had been all along steadily flourishing, his patrons had been of high social position, some most illustrious, others actually royal. Among the latter the King of Poland stands out in relief as having specially sent an envoy to Cremona and that he had to wait three months before be could return with his commission fulfilled. Whether he ran in danger of being decapitated for "hanging about" Cremona so long is not known, but one thing is certain, that patrons royal, illustrious, of high social standing and refined tastes, wanted the newly made violins of Stradivari that could never have been played upon, almost in the absolute sense of the term, while they could have easily obtained well seasoned, well tried instruments of makers who had lived long before. Here is "a nut to crack" for those who persistently assert the necessity and efficacy of age and use to bring tone to maturity. If any further evidence should

be thought necessary to support the assumption of the equal excellence of the new Stradivarius with those that remain with us at the present time, it is contained in the praise of those who heard and used them when quite fresh, declaring the agreeableness of the tone to be beyond rivalry.

Stradivari may be said to have been now in the enjoyment of the plentitude of his powers. Success was attendant upon him without intermission. Tradition says he was reputed in the locality as positively rich, but we do not hear of his aspiring to civic honours as alderman, vestryman, guardian or councilman—common or otherwise—as the outcome of the possession of full coffers. Stradivari simply went on making fiddles. In a position to secure the best materials in the respect of quality, artistically and acoustically considered, he put the best workmanship upon them; also he further selected the best help which, in common with all eminently successful artists, he must have found it necessary to employ.

We now arrive at a point when the question may be fairly put, how much help did he have, and of what kind was it?

As Stradivari left no record behind as to the number of pupils trained on his premises, or assistants who came perhaps as improvers, we are left to do our best in the way of inference. In the first place we may take up the acknowledged fact of his having turned out an enormous number of musical instruments during his very lengthy career; and it must be remembered that his energies were not centred alone in turning out magnificent violins, but that the viola, violoncello, double-bass, besides some of the then not quite obsolete viols of different sizes and fantastic forms, received his attention. These had to be produced at the requirements of his patrons, of whom many had probably not yet completely emerged from the misty musical atmosphere with which the fanciful forms with florid decorations seemed so intimately bound. Further, the fittings for them had to be made pre-

sumably on the premises of the maestro and not as at present in foreign parts. At the time there was not existent that extensive and special manufacture of bridges, tailpieces, tail-pins, and pegs that forms a large and significant branch of commerce at the present day. That the violin bridge especially was a production of the Stradivari establishment and not "made in Germany," is sufficiently indicated by its present form having been introduced by Stradivari. On comparing it with the different patterns of bridges that had been issued by the previous masters of Cremona, it will be seen at once that the master mind of Stradivari had effected improvements that have their counterpart in the designs of his violin patterns. We may notice the successful efforts at stability with simplicity, just enough of detail that would lend itself in completing the harmony of the whole design, while dispensing with every unnecessary angle or curve. Of the fingerboard and tailpiece we cannot speak in the same terms; the master seems to have accepted the manner of treating these parts as handed down by preceding generations from Gasparo da Salo, and thought there was no need for alteration. The design of the inlaid ornamentation on both these accessories, was, of course, of a kind with which the house of Stradivari would be identified and the execution also in accordance. Of the tailpin and pegs, with the decoration of both, the same may be said.

All these particulars point to considerable time spent in direct supervision after the preliminary designs had been made by the principal. This would reduce the available time for direct manual labour at his disposal. There would occasionally be some time spent in the discrimination for purchasing of particular choice kinds of pine and maple, these requiring the closest attention. Whether samples were brought for Stradivari's inspection by agents or their principals, or whether the maestro took journeys to particular districts where the exact kind of wood suitable to his requirements was to be had, we know not, but there seems to be much probability

that the latter was his mode of obtaining that splendid growth of pine, both in appearance and tone-producing quality, with which he brought about such beautiful results. This, when obtained, had to be carefully stored away until such time as it might be required for immediate use. The cutting down and sawing up into lengths for different instruments would not be such as a maker with less patronage would personally engage in; we can therefore place this aside from the time consuming duties. There is, in the foregoing, enough and much over for reasonable inference that with a master, such as Stradivari, having the refined taste and adaptability for work, there was a considerable amount, if not all, of the merely mechanical work done according to his command or under his eye. This would naturally enough increase in proportion as the business connection grew. There would be in this nothing differing from what has been habitual with eminent professors in all branches of art; as far back as Phædias, Praxitelles and Appelles of the ancient classic Greek period. Later on it is well known that many of the masterpieces of the Renaissance period had much work upon them other than that immediately from the master's own hand. If this were not permissible, the number of the grandest creations of artistic genius would be most seriously limited. Raphael and his contemporaries, Rubens and Rembrandt, besides many other masters, are well known to have had numerous pupils in their studios engaged in carrying out ideas previously determined upon and drawn out for their guidance. These assistants were gradually drawn into the way and habit of thinking of their masters, and on leaving them, their own individuality or natural tendency uniting with what they had absorbed of their master's manner, the blending of the two became a fresh production of style. If we take this as our guide in summing up the probable amount of help that was drawn upon by Stradivari during his career, especially that part at which, in our consideration of him and his works, we had arrived, it cannot possibly lead us far

from the actual facts. Taking into account the known pupils or assistants who received the benefits of personal instruction from Antonio Stradivari, they are more numerous than we can affix to the name of any other master, as it must be borne in mind that Stradivari had initiated a fresh style, the influence of which was destined to be of a far more reaching character than any hitherto coming to the front. The Stradivarian school became the foremost, most numerous and soon was to be the most imitated, of all. Among the earliest of his pupils (the precise number or even the names of all will never be known), may be placed Alexander Gagliano of Naples, working with him about the period of 1680 and some years later, one or two others of the Gagliano family may have been workmen in the Stradivari atelier. Lorenzo Guadagnini, Joannes Battista, his son and Josef of Pavia all claim to have lent a helping hand and received instruction, and there is nothing in their work that is in contradiction. The first became a great master of the Milanese school and was afterwards rivalled by his son, who was more cosmopolitan and not identified with one place in particular. I cannot include the names of Montagnana or Gobetti, which have been frequently referred to by various authors as pupils of Stradivari; a close examination of their style and workmanship leads to a different fountain of inspiration, notwithstanding which they both unquestionably were at one time influenced by the work of the great Cremonese artist as it arrived in Venice. Of Carlo Bergonzi, a great master, it is a well established fact that he worked with Stradivari and probably did much more for him as assistant than is generally acknowledged, but that he was originally a pupil is not in keeping with the early and varying patterns which have gone under his name. Further on it will be necessary to refer to this luminary of the art. We must not forget the two sons of Stradivari, Franciscus and Omobono, who received their initiation at the hands of their father and worked with him for many years, carrying on the

business after his decease. Rumour has brought forth another name as pupil or workman with Stradivari, and whose identification with some fine specimens of the liutaro's art may yet prove an interesting study. A relative of the master, we should expect to find his work strongly tinged with the Stradivarian characteristics. His tickets are said to have been all removed in very early times after their insertion and that one only is known to have been preserved intact. Of the great rival — in public estimation — of Stradivari, Joseph Guarnerius, I.H.S., it can only be said there is not a single feature in his handiwork, style or tone, agreeing with the supposition that he at any time was his pupil or assistant, moreover, having by me distinct evidence of his pupilage of another maker of a different school, will of course prevent the inclûsion of his name.

The number of pupils and assistants who worked with or under the supervision of Stradivari in his prime, might, if we knew all, be more considerable than we should be prepared to expect. The proportion in the usual course of nature, of those able to single out a path for themselves, prove their individuality superior to their fellows or eventually become of great eminence, must of necessity have been comparatively small. There may have been many working "on and off" under the eye of the master at different periods who were without ambition or the talent to rise above the position of humble helpers among their more talented brethren, born to be assistants only, and, in consequence, never heard of outside the studio. These, and the before mentioned, must all have had something to do with the instruments their master was sending forth into the world; the more clever ones being intrusted with some responsibility on particular work. It is not impossible to fix upon the parts the assistants probably would be allowed to work upon. In the first place, all the designing, drawing out and tracing down of the pattern on to the mould, or on to the unprepared blocks that were to

be carved into necks, scrolls, or marked out for ribs, would be Stradivari's.

The different stages succeeding each other would be most likely as follows—firstly, the master having been commissioned by a wealthy patron to make of his best pattern and highest finish a quartet of instruments, he would take from his store of choice pine and sycamore, which he had taken so much trouble and skill in collecting together, such pieces that appeared to him suitable for the instruments to be constructed. The upper and lower tables had previously been hewn or sawn to size, then the jointed back and front, if both were so, planed carefully and made ready for the master's work, which would first come on to the wood as a careful tracing from his original design. Sometimes the tracing down may have been done by some advanced pupil or competent assistant. We may fairly assume the presence here of one or two, if not more, assistants, besides a pupil or improver. One would be selected for the bow-sawing of the pattern, another afterwards receiving it for roughly gouging out according to measurements at hand or marked by the master. Another had meanwhile the bending of the thin slips for the ribs to the necessary curves, or working down the corner and end blocks that had been affixed to the mould. Another, if not the same, might have been carrying out the first stages of the working of the scroll, or perhaps a very competent and trusty assistant would be allowed, under the eye of the master, to work on more advanced forms, making ready for the final or necessary touches of the master hand. The sound holes may have been traced down and even the upper and lower circular holes bored. Further, it is not impossible, that after the modelling back and front had been sufficiently advanced, the glueing and screwing down was intrusted to an assistant, and even some of the finishing up with glass paper or other material in use at the time and place, of parts of minor importance. These are, perhaps, the majority of the details in which the individuality of

the handwork of the master was not obligatory in evidence.

In summing up what could have been done by other hands than those of the busy master, it would be extremely difficult, if not impossible, unless we admit its presence, to account for the extremely large output of the great Cremonese, even when taking fully into the balance his very industrious habits and extraordinary long working career. Assuming the above view to be reasonable, the number of new instruments which left the Stradivari house must have been very large. It is well known that the master undertook the repairs of musical instruments, which department would require some personal attention or supervision, even if actually executed by his assistants or his two sons, Francescus and Omobono, who, when their father died, were not very young, the first being sixty-five years of age, and the other fifty-five. They had most likely worked with their parent for about forty years and must have done much of making and repairing, that is, crediting them with some of their father's industrial tendencies. Stradivari had two other sons by his first wife, Francesca Ferraboschi, one, Giulio, died 1707, aged forty; the other, Allesandro, in 1732, aged fifty-five. Nothing seems to be known as to whether they were brought up by their father in his own craft or not; if they were, there was time for them also to have done much work with him. There was a son by his second wife, Antonia Zambelli, who died 1727, aged twenty-four, who under the same circumstances may have helped. We have thus five sons of Stradivari, who, if they were all taught the art, may have been working together, besides other assistants at the same time. Carlo Bergonzi has already been mentioned, but although he came late into the field, yet there seems a slight indication that he may have had to supply the place of others who had departed for the carrying out of their own schemes.

Having so far roughly estimated the kind and amount of work, not necessarily his own, on the violins that were

sent forth by Antonio Stradivari, we may glance at the particulars of detail that demanded his handiwork and that solely. That there were keen connoisseurs living at the time of Stradivari, as also in the previous century and earlier, there is no room for doubting. Workers in art reduce their inspirations to tangible forms helped by colour that people may see them and, comparing them with what may have gone before and have been executed at the same time, pass judgment on them. In like manner Stradivari, like other masters before him, knew that his handiwork would be scrutinised as well as the tone of his instruments. It was therefore obligatory that purchasers should know his work, that in fact his sign manual should be always present. Contemporaneous with him were makers, artists, who had been initiated in the mysteries of the manufacture and application of the wonderful varnishes which have since by their qualities made them famous throughout the civilised world. There was nothing, however, in the material or its application that could, under the closest examination, be discerned as different to what might be seen on the best instruments of the Amatis—these must have been numerous at the time—the Ruggieris or the Venetian masters, but these did not in the application invariably work up to a certain standard of excellence, whereas Stradivari always did. There was a consummate beauty of result in this branch of the liutaro's art known at the time to many, beyond which it seemed not possible to go. It was, therefore, more in the construction and workmanship then, that the sign manual was perceptible. With this view Stradivari seems to have been careful to let the evidence of no hand but his own be seen in parts that were sure to be closely scrutinised as evidence.

Standing first perhaps in importance would be the cutting of the sound holes, the design and careful drawing of these being completed, and cut in metal—it is said thin copper was used by him—they may have been mostly traced down by himself on the pine of the upper table prepared and in readiness to receive it, although

this part without much danger could have been done by an intelligent and experienced assistant. The cutting and finishing with the thin keen edged knife, however, must be his, the slightest shaving over the traced line or not quite up to it would be sufficient to impart a totally different character to the whole. There is no part of the violin in which the sum total of the native characteristics and ability are shown to such exactitude as the cutting of these all important and expressive openings. In those of Stradivari is to be seen the same firmness of purpose and strict curbing of the fancy from proceeding too far, or allowing stability to be over balanced by love of gracefulness, as seen in the designs of his eminent master. To allow no weak part to be perceptible; strength of line with sufficient grace, admirable proportion and balance, and yet withal sufficient expression of mobility and freedom from heaviness were each, seemingly in turn, given the best attention by the great genius of Cremona. It is not using extravagant language when they are termed the eyes of the violin, for it is to these that experienced connoissiers turn their attention at once when inspecting a violin of character newly placed before them. Cut by an Italian, cut by a Frenchman, by a German, by a nobody in particular or who understood nothing about it, are the thoughts arising in the mind. Each country has its peculiar and native rendering of every sound hole that was first designed in Italy. This tendency to impart their own national characteristics by each native workman, runs parallel with that in pictorial art in the transferring to various materials the impressions received after study of the original or animated reality. To many the sound holes of an Italian gem of the highest class are but sound holes that are more neatly done or prettier than usual. To others they will be the expression in that simple form of an exquisitely acute perception of what will excite pleasurable emotions with regard to delicately balanced proportions, graceful flow of line, and freedom from all appearance of effort. That there is much in little concerning this, is proved by the

non-success of all foreign copyists to give a reproduction of the Italian native touch to these details. That this is not an overdrawn description, may be seen on a close comparison between an original Stradivari of almost any period and the most closely traced, laboriously studied and keenly cut sound holes of any of the modern imitators. All have failed signally over these two apparently simple openings on the surface of the upper table.

Notwithstanding this, it may be said there are scarcely two violins alike in respect of expression of these adornments of the structure, each instrument is made to convey its own impression, or display its particular kind of beauty. There is a difference, scarcely to be measured mathematically, that in one will be suggestive of masculine strength, while in another it will be exquisite feminine grace.

In none of the imitations of the master are there seen these qualities expressed in the same degree and kind. It has often been said, and there is more than a substratum of truth in the remark, that, "to copy a Stradivari successfully"—of course, in the fullest sense of the word—"the copyist must be a Stradivari himself." There might, appropriately, be an addition put to this, namely, that a man who could work up to the dizzy height of his ambition in this way, would not copy, but make originals.

Another detail of the workmanship always attended to by the master himself, was that of the purfling. Much has been said of the wonderful accuracy of Stradivari's purfling and that as a purfler he stands unrivalled. This must not be taken in the widest sense, as there have been, and are living, scores and scores of makers who have cut a rut round the border of a fiddle as sharply, and inserted the three conventional lines of dark and light wood as deftly as it could be by the hand of any man, be he named Amati, Stradivari, Ruggieri, Tononi, or Montagnana. There is a degree of evenness and keenness of cutting and clean insertion beyond which it is not possible to go. But there the imitators

come to a full stop. Without the inventive power which will make this curious, simple, yet wonderful little fillet, aid in giving the desired expression to the whole work, the imitator is not—as people say nowadays—in the race. The finishing of the border, the corners and the delicate and often very elaborate system of curves around the sound holes, the hollowing of the wings of these latter, and the final surfacing of both back and front, I have no doubt had Stradivari's individual attention. All the delicate and small work of the scroll, perfecting that elegant flow of line and finish of each turn of the volute, as if everything depended on the exactness of its individuality, obliterating all marks of the tooling and giving his own impress to the gouging of the shell and even the completion of the peg-box; then last and not least, the preparation and application of that pellucid envelope that was to serve two purposes, utility and enrichment of effect.

With regard to this, much has been written and said about its incomparable quality, its elasticity, colour and transparency, with other excellences needless to dilate upon. Summarily taken as a whole, the simple fact is, that in no respect is his varnish different, or better than that of his predecessors, the Amatis and masters of the Brescian school; it had been done before and his most famous contemporaries were doing it still, and he was in this position for the simple reason that no better could be done.

If it was not possible for Stradivari to improve upon the varnish of the Amatis who had preceded him and the masters in the art belonging to the Brescian school, —among whom may be mentioned Giovanni Maggini, Antonio Mariani, and the first one to use it on violins, Gasparo da Salo—it was strictly in accordance with his invariable rule of putting forth his best that he so dexterously manipulated it, probably both as to its composition and final application, that faultiness in some respects to be seen in specimens of other masters is not noticeable in his. Thus, as is well known, the

Brescians, perhaps without exception, were often very careless regarding the thickness of the film, it being occasionally of irreproachable evenness, at other times having almost the appearance of being laid on with a large brush in great haste. On some connoisseurs this haphazard fulness of treatment, this oft times generously effusive manner, carried out with a careless consciousness of power, acts as a charm, inciting to intense admiration the like of which is roused by the rich, juicy brush of Rembrandt and the masters of the Venetian school of painters. But this is not the perfect realization of aim with regard to the envelopment of masterpieces by the old Italian liutaros; in the instances referred to, and sufficiently numerous, we wonder at the wealth of material and smile at its manipulation. Antonio Stradivari would in no wise act thus at any time. To him it was enough that he was possessor in full of the knowledge of materials, and to deviate from the good paths pursued by the artistic Amatis, was not to be considered for a moment; we therefore find that with him the best material was laid with the utmost skill and care. It must be indeed rare that "frizzling," or contraction of the upper surface of the varnish, is to be seen to any appreciable extent. I do not recollect one instance, while with the Ruggieris, most of the Venetian school, and a number of makers of lesser note, it is quite common.

Concerning the colour or variety of tints adopted by Stradivari at most times, it was most likely done to the requirements of his different patrons, many having a desire for the rich orange, some, the light red or "cherry" tint, while others were not content with any than the red or rich full bodied port wine tint. The simple brown seems to have been less in demand, as it is during the period under consideration, rather exceptional. While using the lustrous coverings for his works with consummate skill, there is one qualification that must not be lost sight of. Beautiful, refined and artistic in the strictest sense of the term, Stradivari

never gave way to a desire to outbid the rest of the fraternity for congratulations in respect of gorgeousness, he seems never to have fallen back upon his reserves in the direction of intensity of colour. Thus if a finely preserved specimen of his orange varnish is viewed side by side with one by Joseph Guarnerius, I.H.S., the extra degree of fieriness will be on the side of the latter, but it by no means places Stradivari on a lower level, as the combined qualities of his work, taken as a sum total, is not reached by any liutaro of old Italy.

It may be fairly taken as certain that if there was any master having at command all the necessaries for turning out musical instruments of matchless superiority, both as to acoustical and artistic qualities, it was Stradivari, and many connoisseurs would expect to find nothing but maple used of the richest curl, and that would throw up with delightful effect the lustrous varnish so carefully laid upon it; but, strangely enough, his most magnificently curled backs and sides are mixed with a few that are comparatively plain. A variety of reasons might be assigned for this, but that which bears the greatest probability about it is—that the instruments being chiefly made to order, the maple of richest curl was not always to be had, at least in time for the construction as required. In other respects these plainer mapled instruments are fully equal to anything that came from his hands. Of the proper tone-giving pine he seems never to have been short; there it is, always of beautiful growth, having, like his own handiwork, both delicacy and strength and of a general appearance such as would attract the eye of the veriest tyro in the liutaro's art. How many imitators of the great manipulator have looked at this growth of pine and wondered where the old master obtained it! and how he knew that it possessed the proper qualifications for his purpose. Swiss pine of course! obtained from the lower parts of the forests of the Alps, is an immediate loud response, and cut only from the south or sunniest side of the particular tree when found of course.

This idea was started in the early part of this century in books on the violin, professing to tell the reader all about it or nearly so, and he had only to go, get the stuff, and make Stradivari violins, in fact with the addition of the amount of scientific knowledge of the subject peculiar to modern imitators, he would make "old Strad" "take a back seat." This has been often tried by would-be "Strads," "Guarneris," or "Bergonzis," and full of specious promises that if you will but purchase their wares you be rewarded for your pains by being possessor of everything good that they could endow the instrument with. Keep it, persevere, and the precious qualities will come; some were daring enough to assert that they were already there, if even your mental vision was so obtuse as not to perceive it, absurd prejudice was the cause of this they said, oblivious to the fact that the best musicians of Stradivari's time used the violins fresh from the atelier of the master perfectly new, expressing their unbounded admiration for their beautiful acoustic properties or "pleasurable sounds."

Is the like said of new violins at the present time? These imitators, some of them might be with perfect truth termed forgers, are legion, as in the case of everything that is of a high standard of excellence and which makes acquisition desirable. These artificers had their day, so far as forcing their imitations upon the credulous and unwary could be accomplished, and others have replaced them, yet there aloft still sits the grand master upon his high eminence, unapproached, with the whole world clamouring and struggling for the possession of what in the earnestness of his purpose was only his everyday work.

Before leaving the imitators and forgers, for they are distinct one from the other, the first simply taken being honest, the other not, it may be as well to refer as briefly as possible to the general aspect as afforded by such specimens of Stradivari's art that remain with us after fairly constant usage during the generations that have passed since his decease. Most connoisseurs and

dealers are well acquainted with the appearance of a "Strad" of fine model, work and varnish that has done its duty in former times, and is yet able and willing to answer all requirements of the present day and many to come. If the instrument has not been hidden and forgotten in the cabinet of some deceased collector, but has been handed down from one player to another, kept in healthy exercise, not meddled with, muddled, and maddened by the numerous would-be improvers, bridge regulators, sound post agitators and varnish vivifiers, then—it will probably present an appearance of what is called handsome wear, or as a writer has termed it, "adorned, not injured, by a century's fair wear."

Striking the eye first will be the varnish that has been chipped off from the back chiefly, often from a large space of a rough triangular form; the front being usually more smoothly denuded of its lustrous envelope. This chipping away of the varnish from the maple has been effected a long time ago, and is the result of a custom in olden times of hanging the instrument after use on a peg attached to the wall, or may be the interior of a cabinet. Fiddle-cases seem to have been used almost solely for travelling purposes. They are now in general use as the best means of preservation against damage and a good resting place at all times. During the last century there were scores and scores of makers in Italy who were ready, willing to, and did turn out excellent instruments with fine, artistical and acoustical properties, but the race has died out and their remaining works are of daily increasing value, and consequently much under lock and key, out of harm's way as much as possible. This old habit of hanging up violins not wanted for the moment was, as a matter of course, effected with a slight bang or two each time, and a corresponding cost, small or large, according to the blow to the top layer of varnish most highly charged with colour. Each instrument used in this way will declare to the sufficiently acute observer, its course of handling and even the peculiarities to some extent of the

owner; for it will be seen that the chippings give indication of different degrees of energy or hurry, when the violin has come in contact with the more or less hard surface of the wall.

It must be borne in mind that the times referred to were prior to the introduction of wall-papers; the good, old-fashioned panelling of oak or hard wood, often of bold design, shattered or nicked away much of the old, delicate and precious varnish used for enveloping the works of the Italian masters. All these constantly recurring slight collisions by degrees brought about the results that have been defined by some as picturesque wear or accidental adornment, if such a thing be reasonable. Besides this there was going on the wear caused by handling by one or another of players, rough or mild, contact with the garments, especially the sleeves, all being larger and looser than are fashionable at the present time. The action of these would be more gentle if more continuous. It is noticeable at the lower end of the back of the violin, which is often worn away much below the penetration of the varnish, the corners being rounded down and if rather protuberant, even losing their original character. The upper table of pine being incapable of equal resistance to the destroying influence, wears away sooner, also the border at the lower end and at both sides of the tail-piece—for the old performers placed their chins on the contrary side to what is thought best now—and the right upper shoulder where the palm of the hand and part of the wrist is apt to work, too often, against the edge. We thus see when a handsome, fairly worn specimen of Stradivari's work comes under our notice, the different pieces of tell-tale evidence, varying of course in degree with each instrument. Now all this must have been going on during the time the master's works were being sent out to parts of Italy and to other countries. It had been progressing and was showing the onward march of Father Time in the instruments left by the Brescian makers a century before.

As before observed, the varnish of Stradivari has,

often as not, been worn, chipped or cracked off in, as some fanciers still call it, a picturesque manner or adornment, although from the highest prices being given for those specimens that have the least of it, the taste seems to be growing healthily in favour of perfection of preservation as far as is possible.

It would be out of reason to suppose that full consideration of the subject was omitted by a genius with such far reaching mental vision as Stradivari. That he gave all the necessary study and forethought to the effects of ordinary wear and such as was occasionally going on within his knowledge, there is evidence enough. He saw how the delicate work of his master, Nicolas Amati, was rapidly disappearing under sometimes rough and too often ruffianly usage. It was not in his power to prevent or interfere with this by any peculiarity of construction or quality of the varnish used by him. But this he doubtless knew—that the generally substantial work and total absence of any weak point of detail in design and execution was all that an artist could do. This strength shown over all of Stradivari's designs, even from the commencement, shows that in his grasp of the highest scale of requirement he was also anticipatory and in this wise, that he followed up the self evident principle in art, that the best combination of forms, proportions and masses will answer best for their permanence.

The numismatist knows full well how, on the coins used in various countries, the masters of basso-relievo had concentrated their skill on the subject. The balance of projection and depression for good and proper effect under different situations of light and shade, or even independently of them on occasion—is of paramount importance in all branches of art in their widest range. The omission of proper thoughtful attention in this direction is one of the obstacles to success among copyists in any direction of art. In architecture the imitator or restorer of some early English mouldings has often made ignominous failures from the non-application of

knowledge of this kind: just a trifling variation from the original while in progress being deemed of little consequence, but when finished and left for exhibition under the truth testing rays of the sun, the qualities that should have been there are, as the saying is, "conspicuous by their absence." In full view of the above and with an intelligence unsurpassable, Antonio Stradivari so arranged his forms and masses in construction that under fair usage and wearing down of the projecting parts, the original beauty of the whole should be retained as long as possible. A fine Stradivari much worn still retains its air of distinction, and very much of its material must have disappeared under bad treatment to make it beyond recognition almost at a glance.

There can be very little question of there being more than mere admiration for the appearance. Simply viewed, there is the spice of romance in connection with it, the history is written in language more or less intelligible of the knocks and bruises inflicted, unwillingly in most instances, but not invariably so. And here attention may perhaps be appropriately drawn in these pages to what has been asserted by a few, very few, dealers and others, whose general intelligence should have been a guarantee against the dissemination of utter nonsense and which has even been in print! that—just think of this—Antonio Stradivari, the acknowledged master liutaro of Cremona in his own day, and of whose growing fame no one can foretell the limits—actually imitated wear and tear of varnish on his violins. I have not the print at hand, and so cannot give the exact words in which this scum from the boilings of a distorted imagination was conveyed; nor point to the first unfortunate who let it flow abroad. In all probability it came from the same old source, a desire to lift up to a high level worthless imitations of the master, confuse the public mind so as to make it more and more difficult to tell "t'other from which."

A fine specimen, and well known, of Stradivari's art was once lying on a table before me. An amateur of

considerable attainments and honesty of purpose then present was dilating upon its many beauties and fine preservation; he, I soon found, had by some means become infected with the absurd notion of the varnish having been artistically pecked away by the original maker! Just fancy this—Raphael slitting a hole in his chef-d'œuvre to make it look old—Michael Angelo chipping some bits from the ceiling of the Sistine just before the scaffolding was removed, or Phidias snapping off a limb and browning the raw surface to please future connoisseurs.

They might all have done this with an equal deficiency of reason and consistency if we allow for one moment any possibility of the genius of such a stamp as that of Antonio Stradivari descending to such depravity. Those who have lent themselves to this incongruous notion, hastily generalising from insufficient particulars, have strangely overlooked the fact that the same kind of chipping is seen on the violins of other masters, Joseph Guarnerius, Carlo Bergonzi, and others of the Cremonese and Venetian school, besides—going far back—the older ones of Brescia and Pesaro, any number in fact over all Italy.

CHAPTER VI.

SOME MODIFICATIONS IN STRADIVARI'S WORKS—VARIATION IN FINISH OF DETAILS—THE INTERIOR OF HIS VIOLINS—THE BLOCKS AND LININGS—THICKNESSES OF THE TABLES—HEADS OR SCROLLS OF HIS DIFFERENT PERIODS.

WE will now resume our consideration of the handiwork of the Cremonese master as regards other details. We left him steadily working through his so-called "Grand epoch" or, more strictly speaking, his period of finely settled designs in outline and modelling. He had arrived at the goal of his ambition and produced works of excellence which—taking them as a whole—it seemed impossible to improve upon. He was henceforth content to put into them such slight modifications as would prevent too great similarity. Thus we find some were flatter in the arching, others a little shorter, being a trifle under the usual fourteen inches, others again were over it, but there was the same general contour, his now well-known accentuated design, complete as possible in all its details.

From the great number of finished works that were turned out one after another, it is quite reasonable to assume that there would be occasionally some little evidence of extra pressure of business and consequently less time spent over minor details. That this actually occurred at times there is no doubt and can be perceived

clearly when looked for. One instance occurs to me in which the purfling had been cut off a trifle short at the corners and did not quite fill up and make a good mitreing, otherwise all along the border the easy, swift, yet powerful stroke was maintained up to his usual standard of accuracy. In other instances the point or "bee-sting," as it is sometimes called, is not so sharply defined perhaps in two corners, while the others were the perfection of minute finish.

It seems fairly certain that the great Cremonese was not at the time thinking of the almost microscopical scrutiny of critics certain to occur one hundred and eighty or so years in the future. These little differences in accuracy of unimportant detail or accidents of work may be taken as evidence that Stradivari was labouring day by day to meet the requirements of patrons different in disposition and perhaps patience. When at the same period he has been allowed to put his full time and attention to his work, then we find the four corners of equal unsurpassable finish, and other minute details over the whole structure so intently studied that nothing could possibly go beyond. These should really and appropriately be termed his "grand pattern." There is present in those instances the combined excellences in the highest degree of mechanical precision, beautiful proportion and drawing, such as no master designer of the Renaissance could surpass, the choicest materials, including splendid varnish, the whole united and capped with that essential, a beautiful tone.

A few words about the interior of Stradivari's instruments; one kind of work is perceptible in all of them. There is not, as we may see in the works of other masters, that off-handed, or even slovenly want of finish inside while the whole attention of the maker has been concentrated on the exterior. With Stradivari all is well done, the blocks, end and corner ones are carefully faced and have little, if any can be seen, of the tool marks left upon them. The linings let into the corners are in every instance done with minute exactness. The

wood of these and the blocks is a kind of Italian poplar, sometimes called willow and by the French sallow; it is light and has no threads like pine to cause difficulty in the manipulation. Too much importance has been attached by critics to the presence of this wood in Stradivari's violins. That it had nothing whatever to do with the excellence of tone quality is clear from the fact of makers of inferior skill and less renown for tone having used it in the same parts. The most likely reason is—as most repairers have concluded—the absence of thread, its lightness, pliability and evenness

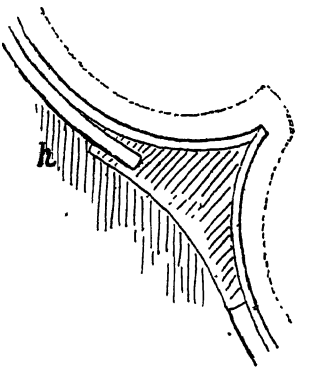


DIAGRAM *h*

of texture, being thereby adapted for the necessary long strips for fitting round the curves. Some makers used it invariably, while others did so occasionally, perhaps not always having a stock on hand. When for some reasons, such as being worm eaten or badly fractured, it has been found compulsory to remove them and substitute others in their place and of other wood, there has been no perceptible deterioration in the tone either as regards quality or quantity. Not only so, but there is the fact that many of the Italian masters and their

numerous pupils, to say nothing of makers of a lower order, as often as not sent forth their violins without linings, some even without corner blocks. In most of these instances, however, the ribs were left very stout in substance in order to retain a sufficient holding surface for the glue. The subtle curvings of the ribs of an Amati, and more so of a Stradivari, almost precluded the use of a very thick material, especially so when the curl or figure was bold and elaborate. In consonance with this, we find with Stradivari that the thin plate or veneer from which the ribs have been cut is not thick but of accurate and equal measurement along its course. The linings being equally true and fitting in the closest manner to the ribs, are in their original state somewhat

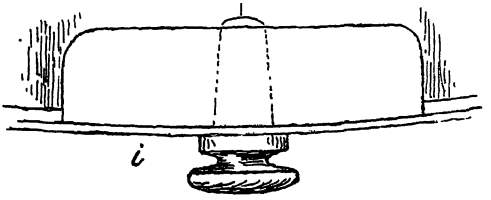


DIAGRAM *i*.

stouter, the middle or waist ones parting slightly on approaching the corner blocks each way and thus giving a gradually increasing area of attachment (diag. *h*). All of the four blocks are well trimmed off and their surfaces levelled, being quite regular in their form and size and trimmed to proper measurement. The end blocks serving to sustain the greatest amount of strain longitudinally, are also found well finished, in contrast with so many seen in instruments by makers of eminence that are simply hacked roughly into size and shape. They were carefully estimated in their proportion for strength sufficient to resist the strain caused by the size, length, and pull of the strings in use at the time of Stradivari, and with something to spare, so that even now, under

the enormous strain of the modern high pitch, when in perfect and original condition they are equal to their task. In a number of instances, when much repairing, good or bad has been done, the end, and often the corner blocks, have been replaced by modern ones. There is, of course, under these circumstances less of Stradivari present, but it has often been a case of painful necessity or question of expense as to the choice between two steps for restoration to health and particularly for strength. The form viewed vertically adopted by Stradivari was that of a parallelogram with two rounded corners (diag. *i.*). The upper block was left a little thicker, the junction or root of the neck necessitating this. The renewal of one or both of these has also been caused incidentally by the deep insertion of the modern and longer neck, thus lessening much of the grip or purchase of the block on both upper and lower table. The same may be said of the nut over which the tail string passes, this being—owing also to the rise of the modern tone pitch and increase of tension—much larger than in Stradivari's day, and he may in a sense be said to have had to buckle to modern requirements.

While the seat as it were of our criticism is at the present moment in the interior portion of the admirable structures bequeathed to us by the great Cremonese, we may consider further the surface work of this part. Everyone knows that the interior of a violin is left unvarnished by violin makers. Stradivari was in no way anxious to become an exception to this rule. The reasons for its adoption were, and are, still obviously wise, although not necessitous. He knew that his work, in common with that of other craftsman, would be liable to fracture, and that in the process of restoration the surfaces and junction of parts must be laid bare, and varnish where not obviously necessary would be an obstruction.

For the satisfaction of the anxious inquirer it may be stated that varnishing the interior has, to my knowledge, been tried by an excellent modern workman as an experiment and did not bring any adequate reward by

perceptible improvement in tone quality. In another instance, to prevent the encroachment of the collector's arch-enemy, the worm, the innovation seemed to have proved ineffectual. Stradivari may have tried this and perhaps, for once at least, met with failure. The bar—there is but one—ofttimes erroneously called sound-bar or bass-bar—is, in common with all the violins of the old Italian school, quite inadequate for modern requirement, that of supporting the upper table on the fourth string side against the pressure caused by the tension of the third and fourth, the heaviest strings.

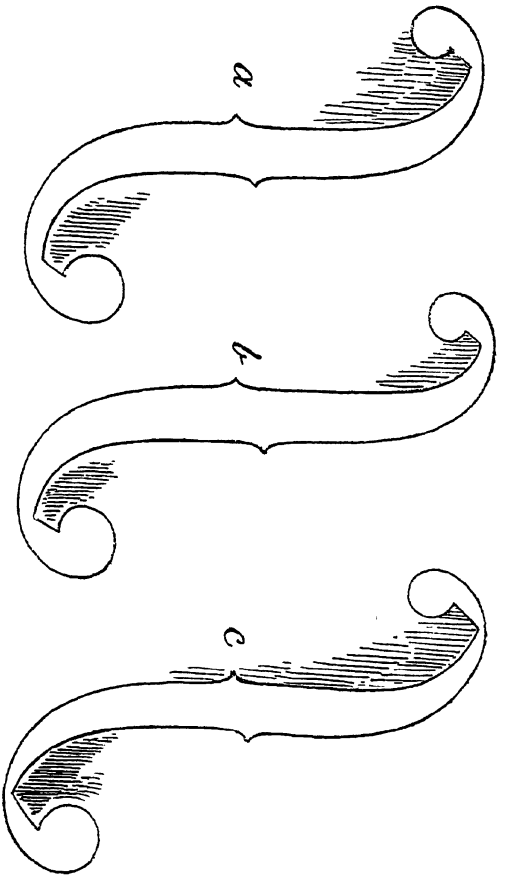
That the length, thickness and disposition of the bar has much to do with the good going order of every violin there is no disputing. Stradivari did not live long enough to make acquaintance with the numberless proposals for acquiring his quality by making this part longer, shorter, thicker, or thinner, besides various modes of attachment. That some of them would have raised a smile on the features of the veteran Cremonese, we may be quite sure. That he was quite content with the size of the bar in general use during his life-time there can be no doubt, as there is no record or evidence of any experiments having been made by him, fair argument that none were considered necessary; the instruments finished, the ordinary bar of the period was inserted and there was an end. The whole of the interior indicates an absence of any question of improvement on what had been done before by his master Nicolas Amati and his predecessors, apart from good finish.

A few words as to the thickness of the upper and lower tables. Of this much has been written, an extremely small portion being from actual observation, and most of the other parts being reiterated assertions started many years back by people whose supposed knowledge rested solely upon simple conviction, without an iota of *bona fide* evidence in support. To them the fact, well known to everyone engaged in the manufacture of sound-boards of musical instruments, that a very thick sound-board produces different results to that of a

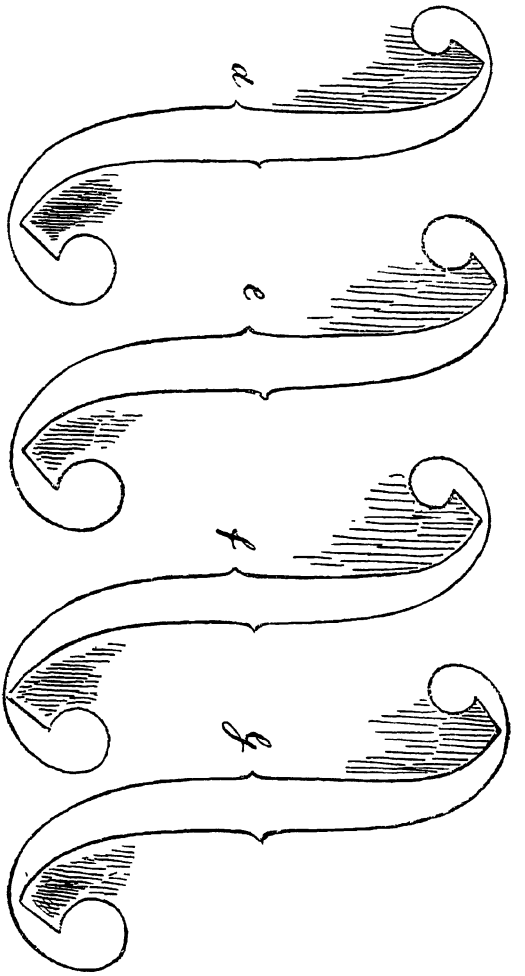
very thin one, was sufficient, therefore the secret of Stradivari with regard to his tone, was "the adjustment of the thicknesses," whatever that may mean. The assertion seeming perhaps rather bare, and wanting some sort of support, was bolstered up with another no less instructive, that if you "pinged," or tapped the separated upper and lower tables of a Stradivari so that they each gave out a note there would be found the difference of a tone between them! Here was something for the "babes and sucklings" of the craft of violin making to swallow. It was stated also which table would give the higher tone. Unfortunately for some would-be Stradivaris, the particulars of the tonal difference were copied loosely and reversed and so came "confusion worse confounded."

History does not relate which of those parties who may have practically followed up the experiments were successful in arriving at the goal of their ambition; they

The illustrations of sound holes, or *f f* commonly so called, will, it is hoped, be interesting as showing the modification or development from those of Nicolas Amati to the latter part of the period of Stradivari's career, called "the grand." They are all reproduced from fine specimens of the great Cremonese masters, and are the exact size of the originals The first (*a*) shows the *f* of a violin of the Nicolas Amati's late period, 1663, unaffected—at least in this detail—by the individuality of his hereafter eminent pupil (*b*) While still going under the name of Nicolas Amati, 1678, the *f* shows the actual interference of Stradivari, it is more vertical, but the peculiarities of the upper and lower wings are retained. (*c*) 1684 The design is quite changed, there is some return to the flow or inclination of Amati, but the whole thing is more extended, is slender, and the upper and lower wings are widened, this modification was retained for a permanency (*d*) 1690 There is some return to the vertical design, but the width of the wings is retained, while the lower part of the design is of larger proportions. (*e*) 1700 The design is more equalised and is more substantial. (*f*) 1715 The same proportions are kept with an increase of gracefulness It will be perceived the lower wing approaches at its lowest part the opposing curve more closely, the upper one likewise; in some specimens of this period it is still closer (*g*) 1725 While the upper part is very like the preceding, the lower part is more contracted and curled up There is a somewhat heavier expression about the upper part in consequence.



SEE PAGE 48.



SEE PAGE 48.

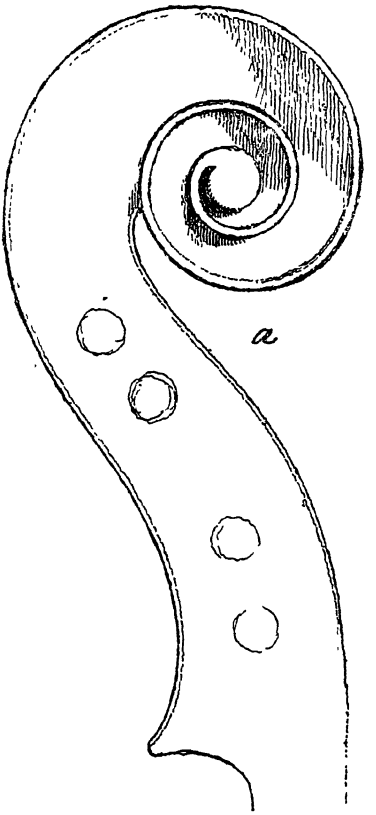


FIG. *a* SEE PAGE 49

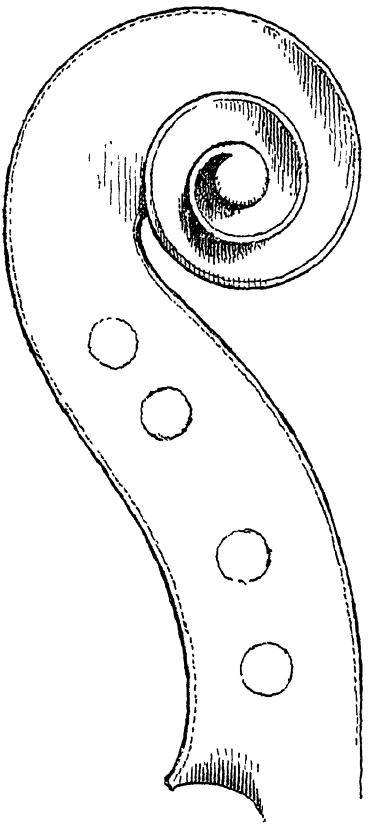


FIG. *b* SEE PAGE 49

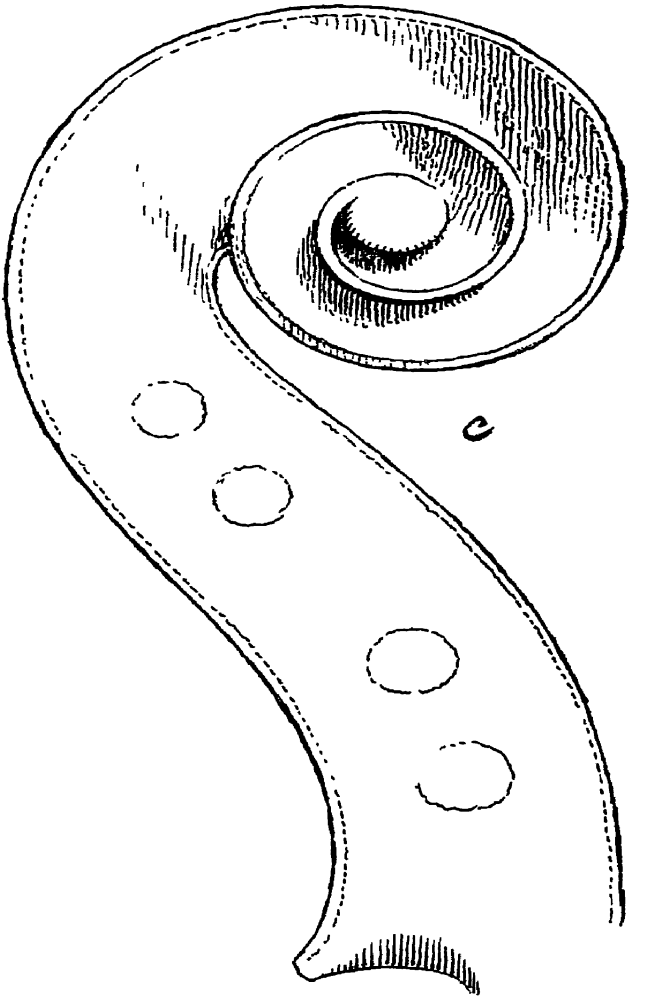


Fig *c* See Page 50

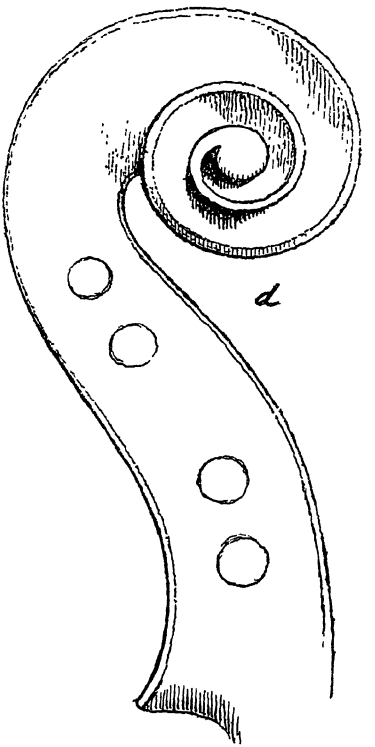


FIG. *d* SEE PAGE 50.

may even still be continuing the struggle for supremacy with their master.

We have not to look far for ascertaining whether these assertions have borne fruit. There has been time enough for works built upon these so-called discoveries of fixed principles to have settled down, and the popular verdict now is—that those which guided Antonio Stradivari have yet to be discovered. The numbers of announcements of fresh discoveries—repeated *ad nauseam* —are in themselves some evidence that what has gone before was founded on deceptive evidence, and therefore to begin anew was the only course left.

The illustrations of scrolls by Nicolas Amati and Antonio Stradivari, being from good specimens by the masters, will be interesting as showing the progression of the modification in detail under the hands of the latter. In fig. *a*, Nicolas Amati, c. 1670, it will be seen that the first or smallest turn after leaving the axis or "eye" is kept for some distance rather close. Every effort seems to have been made for keeping the turns or winding from being too circular, there being a general dip downward and forward. The gouging is deep from the commencement. The aim of the artist in the whole design appears to have been towards perfection of gracefulness.

Fig. *b*. Antonio Stradivari, 1683, the openness and bold swing of the first turn at once on leaving the "eye" is very striking, it also commences higher up, there is almost an absence of flow or downward tendency. The throat underneath the volute is very massive, although all the edges are finished off with the utmost delicacy and sharp tooling. All the details of scroll carving by Stradivari at this period are marvels of mechanical dexterity of handling. The different depths of the gouging are carefully calculated for solidity of effect, each portion being deep in proportion to its width, the smaller turns thus having less depth than the larger. With the Amatis there seemed to be a striving after attainment of the greatest depth possible in the smaller

gougings, those nearest the axis reaching frequently to almost the same depth of level as the outer or broadest one. In no part of his work does Stradivari show more clearly the result of careful calculation after closely studying the work of his master and others that had gone before.

Fig. *c*. The period 1715 shows the result of further calculation for general effect and a consequent modification in respect of minor details; there is present, as always, the sufficiently bold swing of the first turn from the axis. In choice specimens the point of commencement is as sharply and clearly defined as the mitreing of the purfling at the four corners of the body of the violin and which it seems impossible to excel. The throat, with the whole of the peg-box, is reduced slightly but consistently with strength and beauty of appearance. The public verdict has remained unshaken with regard to these scrolls being in respect of the combination of excellencies the best carvings of the great artist. They are in the most trifling degree smaller than those carved before the period of 1700. Among those cut about the 1710-15 period, or even later, are a few that seem to have been intentionally both smaller and more upright. Although having all the essential excellencies of detail they can scarcely be considered as coming up to the standard of the others in respect of refined grandeur. This type may be said to be mixed up and continued with more or less persistency to the last, and of this Fig. *d* gives a good representation. There is frequently a more emphatic or energetic gouging at the commencement of the turns, a more developed "ear" as it is often termed. It is gouged with quite as much care as the rest. Speculation has been rife as to the possible influence or even personal help of Joseph Guarneri at this point, but there is no solid foundation for surmising the presence of one or the other. If the gouging of this part may be said to bear any sort of resemblance to the emphatic or impetuous touch of Joseph, it is confined strictly to this portion; other essentials are wanting

that would be absolutely necessary for crediting artists of distinctly opposite tendencies with—it might be almost rightly termed—tampering with each other's designs.

But if the name of Carlo Bergonzi is brought into the field of speculation—granting for a moment that Stradivari was not very likely to step aside occasionally from his accustomed groove—then we have much more of a possibility or even probability in the matter. It has always been asserted, and I believe never contradicted, that Carlo Bergonzi was for a time actually working in the atelier of Stradivari — whether as pupil or only assistant matters not—but we have in the fact of his presence a distinct factor in any of the supposed anomalies of the later periods of the grand Cremonese master. To this, however, we may put some consideration further on. There is further in these later scrolls a modification, alteration, or supposed attempt at improvement in the edging of the turns, these being left a trifle stouter than at the commencement of Stradivari's career.

This is continued along over the top and down the back of the scroll to the shell, which seems to be a little less elongated than the early specimens. It may be more apparent than real in most instances in consequence of the bolder edging. The hollowing of the "shell" is seemingly less delicate, but this may be taken as a natural result of the foregoing. Further on these details will come in again for review.

To continue our remarks on the question of "thicknesses and their adjustment" with each other. This is a department of the luthier's art, to which perhaps much more attention has been directed by theorisers than by practical workers. The latter class have no doubt been influenced by the former to a considerable extent, oftentimes having their views expressly carried out under their personal supervision. By musical amateurs it is found to be a good theme for conversation when the excellencies of the works of various masters are dilated upon. That

the richness of quality in a "Joseph" is the result of his having left "his wood" thick in certain parts and not so much in others,and that this, combined with the flat modelling, was the secret, and that it was written that some of the Josephs were too thick in the back, and therefore the freedom of the vibration was checked and the tone to some degree stifled and deficient in penetrative power.

Among my early musical acquaintances, I remember an amateur violinist who would "wax eloquent" on the power of his Strad, asserting that it was owing in a great measure to its having been "left thick by the maker" all round near the border. This, no doubt, many other amateurs, acquainted with what used to be in print on the subject, will recognise as being in opposition to what had been accepted as being the rule generally observed by Stradivari, that the arching in its thickness gently decreased towards the border where it was about a third less than at the centre. This gentle gradation was said to be the cause of the beautiful "silky" and "sympathetic" quality so prominently characteristic of his instruments. The explanation of "the thing in action," as mechanicians would term it, was thus—the greatest thickness being at the part all round by the feet of the bridge, was able to sustain the vibration, or the successive shocks caused by the bow, which were transmitted through the wood of the upper table and were gradually lessened in intensity as the thickness decreased toward the border, where they subsided, or were lost.

I do not know what explanation was given, if any, of the "system" of thickness adopted much by some of the Milanese school, which was that of hewing away the wood until it was thinnest at the part all round by the feet of the bridge and thickest by the lower wings of the sound holes. Judging by the before mentioned assertions as to the association of power of energetic vibration with the thickest wood under the bridge, these Milanese makers were acting very wrongly, but, strange to say,

many instruments of very great power were made by them under these conditions.

Many years ago I was conversing on the subject of thicknesses with an English maker of experience and who seemed to believe in certain "thicknesses," and having then as yet made no practical experiments myself in the matter, I put the following to him. There are many violins to be met with that through ill-usage and pressure on the bridge have depressions instead of the level wood at the part we should expect it to be, and yet the tone is considered fine, how is this? The answer was remarkable, and not unworthy of the class of makers to which he belonged—that although the wood had become thinner from pressure, "the original amount was all there," it was only squeezed closer together. The instruments were, no doubt, "rightly gauged" in the first instance. "Now there," he said, pointing to a 'cello hanging up almost out of reach and looking in rather a woe-begone condition, is a bass that "never would go well because it was badly gauged when first made." Age and usage were to be of no avail in bringing this wretched piece of workmanship up to the standard of the average.

This last assertion might have been of considerable weight had the maker been a personal pupil of Stradivari, but the public verdict has been that there was a great gulf between the two, and that the first had not been initiated into the secret of the others. Foreign as well as English makers have announced in the most impressive manner at their command that their instruments were identical in all respects, including the system of thicknesses in the originals, buy them, use them, and be convinced that in time they would be just as good as the real thing.

The foregoing is perhaps enough to indicate whether or not the secret of Stradivari, or indeed any of the other Italian masters, great or small, had been discovered by caliper measurement. It is strange that the impression has held sway so strongly that the genius of the great

master lay in his manner of distribution of the thick and thin parts of the upper and lower table. The first thought in this direction would be that if the theory was good, its practical application with ordinary skill and care would be sure to bring about the desired result. But more than this has been done in experimenting on originals and copies from time to time. We have within a mile of Charing Cross no lack of workmen capable of gauging and copying with sufficient exactness the thicknesses of any Stradivari brought to them, if that were all, or the principal means necessary for reproducing the famous qualities of the great Cremonese. It seems to be forgotten that hundreds of clever workmen have lived since his time, in his own as well as other countries, who have given the most assiduous application to the making of exact copies and with a like result—that of total failure. For a moment let us turn our thoughts to the nature of the materials comprised in the sum total of the structure known as a violin. We have for the upper table, or front, a thin slab of wood known as pine, from a species of tree that grows all over the world. The varieties are, however, innumerable and the purposes to which they are put, equally so. For the lower table, or back, a more dense and tough wood is used. That the particular kind used in the construction of the famous instruments of the great masters, and mostly that known as curled maple or "hare wood," was chiefly on account of its beauty, is evident from the fact that all the best Italian makers had recourse at times to other and less showy wood. Beech was occasionally used by Carlo Bergonzi. Other tough woods grown in Italy, even poplar, have been used by some makers, seemingly when the supply of better looking material ran short. That there are extant some "Strads" with backs of some plain wood other than maple is more than likely. We have, then, for the upper table of the violin a wood of soft but elastic consistency, the strength of which lies mainly in the threads running lengthwise, and which, when the wood

is cut in the manner usual with all violin makers since its invention, serve the purpose of small joists running from end to end of the upper table. The soft material lying between these is very susceptible to damp,especially when fresh cut. Thus, if a piece of pine be cut ever so smooth with a sharp gouge or chisel, a slightly wetted brush drawn along the surface will at once cause the softer parts to swell and so leave a ribbed or " corduroy " appearance when it is dry. This will serve to show how far this wood is suitable for regulating by such very minute differences as would be necessary when the thicknesses theory is confided in and efforts made to reduce it to practice. The exactness reasonably expected of such a master of quality as Stradivari would be upset in an instant by the application of a little moisture, and which either by accident or during the process of repairing would be fairly certain to occur some time or other to every violin that left the hands of its maker.

CHAPTER VII.

STRADIVARI'S TONE AND SYSTEM — THOSE OF HIS PUPILS AND ASSISTANTS—QUALITIES OF TONE PRODUCED IN DIFFERENT LOCALITIES.

WE may now refer to actual observation or close examination of Stradivari's work with reference to the question of system, whether there is evidence of its presence and how followed by him. That his violins should have been from time to time well measured by the very numerous army of identical imitators, fair copyists, and all sorts of connoisseurs and theorists during the present century will be at once admitted, and the results may be summed up in a few words. Stradivari did not leave clearly defined any evidence of a system of gauging which he strictly followed, at any rate in such a manner as to enable the least approach by such to be made by any followers in his steps with any measure of success. In short, he was guided by the exigencies of the moment as to the amount of wood left in his ordinary or choicer specimens.

It has been stated before that his quality of tone was one, not several, and for these his patrons flocked to him, as his admirers have also more and more earnestly sought for him since the supply has ceased. But it was not desirable that the greatest possible power should be given to instruments that were in many cases to simply charm a small family circle of friends in an apartment of modest dimensions. He would, therefore, naturally enough vary the amount of wood left. This would be quite in accordance with what is perfectly well known to

all makers and repairers of experience—that with a violin if very "thickly timbered," the tone is less easy of emission, or actually weak. On the other hand, if too thin the emission is comparatively easy, but lacks intensity and is termed "hollow." Under these circumstances we should expect to find a variation in the thicknesses of different violins of Stradivari, which is in accordance with fact.

Some connoisseurs have been in their enthusiasm too hasty in their reference of general principles from a few particular instances and their researches—as time thereafter showed—did not bear the fruit so anxiously looked forward to.

An instance comes to mind of two well known dealers, one British, the other foreign, meeting together one day and opening some half-a-dozen Strads, that appeared up to that moment to have had their interiors undisturbed, or perhaps it might be said untampered with. What a meeting! and what a parting! let us hope that each table, upper or lower, that had so long been working in harmony, eventually became again properly mated and gave no cause for lawyers to "put their fingers in the pie." The results of the examination is related thus:—"In no two of the instruments were thicknesses alike; some had thick places and thin places; some were thicker on one side than the other; all were thicker in the centre of the upper table and all had these as three to five for the back."

Another is that of a well known continental repairer in his day, relating how he had repaired a very large number of real Strads and found the upper tables to be of the same thickness, two and a half m's. all over, but that the backs varied in thickness. Some discrepancies here seemingly. To add to this, a correspondent says the Strads he has measured "have certainly not been thickest in the centre of the upper table."

My own observations as to thicknesses I am afraid will not afford much comfort to those who have been

hopeful at any time that the calipers would drag forth the precious secret. I recollect many years back seeing a very fresh Strad, and a hasty measurement possible at the time revealed too much wood, that is, judging according to our modern ideas of regulation.

One instance of a Strad, once my own property, comes to my mind. It had something wrong with the interior that necessitated opening. The violin was of good reputation for its tone of fine quality, quantity and ease of emission. There was no help for it; much against my inclination the separation of the upper table from the ribs would have to take place, either by my own hands, or those of some other person, the rectification being impossible from the exterior as it sometimes may be. With all necessary care, guided by past experience, the opening was safely accomplished, and after a very interesting examination of the interior, which to an ordinary observer would have seemed but peering into a dirty old wooden box, having nothing perceptibly different from any other, was in what would be called a fair state of preservation. I took the calipers in hand, expecting to learn something, but found all the original thicknesses had been lost under the hands of numerous repairers.

The supposed system or rule followed by Stradivari—that is, according to what critics and writers have declared was his habit—was certainly not demonstrated in this instance: in fact the eyesight alone was sufficient to perceive that whatever theory the master had believed in as necessary for the production of his inimitable quality, or whatever rule as to gauging should be followed in order to obtain enough power and freedom of emission were, in the present instance, we will not say ignored, but quite imperceptible; and why? because the fiddle at one time had been what we moderns—with our ideas of regulation and fitting—would term "too thick in the wood." The instrument had undergone much affliction from various physicians, but, judging from various little details of evidence, been at almost all times

highly prized. Here and there were the studs or buttons of various kinds of pine stuck by repairers of different nationalities and degrees of skill, some placed with apparent good intention, others without reason at all, while several parts bore indications of studs having at one time rested there and been afterwards removed by succeeding repairers. Now all these men had a thought of doing their work properly, and in finishing off their studs with gouge or glass-paper, had whipped off around each spot some of the precious wood of Stradivari, with a general result of a series of hollows and gentle prominences not at all pleasing to the eye of the believer in the thickness theory, but nevertheless instructive.

Other instances in which the master's work—while still good and serviceable, with much evidence of unskilful repair, or want of proper attention at the time of accident, have come under my notice, enough, long ago, to have, as the saying is, "knocked into a cocked hat," all that has been put forth regarding the mathematical precision of the thicknesses over the different parts of a violin by Antonio Stradivari. One or two further remarks may be interesting on this part of our subject. The fact must not be lost sight of that the pupils of the now well established master of his art in Cremona were working either at that place likewise, or in the large cities of Italy, and had become famous, or were soon to be so and themselves surrounded by learners of the art. All these had been initiated in the secrets, if any, of their craft and in the particulars which distinguished them from others, or we may say, they were of the Stradivari school, showing in a more or less degree the same species of tone which the master had brought to maturity, and which he retained with consistency and never swerved from to his latest day.

It is quite a reasonable supposition that most, if not all, of the personal pupils were taught by the master, or had the way pointed out to them by which they might, with the right ear for discrimination of tone quality and enough of industry, impart to their works

the identical qualities of those of their teacher. But what are the facts left for our consideration in connection with caliper measurement? the pupils admittedly of his teaching, among whom we may mention Lorenzo Guadagnini, his son Joannes Battista, Alexandri Gagliano, one or two of his sons and Carlo Bergonzi, as the best known, each adopted their own, or shall we say, left no more evidence for us of having a set rule for thicknesses than their master. The nearest approach to the asserted system of Stradivari, that of a gentle declination of substance in the wood down to the edge, was made by Lorenzo Guadagnini in his extra sized violins; but then the tone, wonderfully fine, is not Stradivari, but Guadagnini. Carlo Bergonzi's system, if we may for a moment call it, was quite unlike Stradivari, and yet connoisseurs have frequently credited him with having got "the same beautiful quality of tone." From these few references it will be sufficiently plain that the grand secret of tone quality must not be sought for with the aid of calipers, so we will dismiss this part of our subject and proceed to other considerations.

Besides those who have pinned their faith to the thicknesses, there are those who take up with the "air mass" theory. I am afraid the arguments in favour of this last will not bear even so much knocking about as those just considered.

We have in the first place to take into account the fact of the larger modern bar taking up more room than the old obsolete one of, not only Stradivari, but all the other masters of his time and before. The upper and lower end blocks have been enlarged in many instances to obtain a better hold on the upper and lower table. These alterations have been each of necessity, not of ignorance or mere whim, and moreover have proved efficacious for the end in view. The restorers, or regulators who have performed these operations must—according to the "air mass" theory—have been acting quite "in the teeth" of it and Stradivari's regulation, further there is not one fiddle in a hundred—perhaps not

that—which has been in use for a generation but what shows a sinking one side or the other, or, when the modelling is full, a depression in the middle of the upper table, and very frequently a greater fulness at the back where the sound post touches and presses from the inside. These alterations, individually or collectively, alter the "air mass" of the interior, and the violin thus, according to the theory, contains within itself the elements of its own early dissolution, so far as fine quality is concerned. Facts, however, go to prove the contrary, and with the modern regulator's efforts to obtain the best amount of a good thing known to be present, it is quite probable that Stradivari himself never heard his instruments to such advantage as they may be now, notwithstanding the unreasonably high pitch to which violinists are obliged to conform their tuning.

There was another theory promulgated many years back by certain people of some degree of eminence in their own walk in life. A grand discovery was announced, that the excellence of the violins of Stradivari consisted in the tonal difference between the upper and lower tables peculiar no doubt to that master. This sort of committee of scientific experimenter, violin dealer and author, did not—while centralising their efforts on the violins of one master—say whether the same relationship existed between the back and front of a Nicola Amati, Maggini or Gasparo de Salo, they made something of a slip when they mentioned the violins of the great Joseph Guarnerius as showing the same tonal difference.

It would have been very interesting to have heard of results after further trials by the same experimenters upon upper or lower tables of violins by now not very much less celebrated makers, who, although of the same class or school, were living—for those times—far away from the central luminary of the Cremonese art. What would have been said of Montagnana of Venice? a star of the first magnitude, curiously near in quality and quantity to the great centre to which he was willing to

pay obeisance and throw out a reflected light; of Gobetti, perhaps more "Straddy" than any other Italian, Gofrilleri, Seraphino, two or three of the Tononis, besides other lights of lesser magnitude, with exceedingly fine qualities, but perhaps open to the charge of intermittency. Further, several of the Milanese school,—offshoots of the Amati and Stradivari,—of Lorenzo Guadagnini, a master of his art in all its details, if ever there was one, his son Joannes Battista, steadier in his working, but more uncertain in his results—shifting from place to place, may have had some connection with this—and the occasionally fine artificers of the same place, Landolfi, the Grancinos and Testores and later on Balestrieri of Mantua and Storioni of Cremona. These men, always good, and when circumstances were favourable, great in their art, often grand in their individuality and power, were, by these modern scientific interrogators placed aside or quietly ignored, apparently either as unworthy of their recognition, or of such inferior renown as not to come within the scope of their investigations.

A close and searching inquiry into the causes that enabled different masters of their art to bring about the desirable end of their labours, that of imparting a distinct quality and individuality of tone, might have enabled them to get at least a hint as to the means whereby Stradivari gratified the tastes of his patrons at the time and connoisseurs in general of the present day. As indicated before, the Venetian masters were—probably by the same means—able to put before their patrons that kind of tone most in agreement with the luxurious surroundings of the Venetian nobility, or offered and found acceptable to the musical public generally there.

A prolonged, earnest examination of the peculiarities of tone attached to the violins of the makers of the chief seats of violin making, has led to the inference that the difference in kind or degree was not from individual choice, but chiefly owing to outside influence.

What is known as the old Brescian type of tone was

doubtless suitable to the tastes of musical circles, among whom the then new style of musical instrument was introduced in Brescia. When settled down, the Amati family, a group of thorough artists, proved themselves alive to the requirements of the fresh district that was henceforth to be the scene of their labours for generations. The Brescian quality had either been found by them, or was known beforehand, to be too ponderous or insufficiently endowed with the more feminine quality desirable in the minds of the Cremonese. The Amatis seem to have been in full possession of the means necessary for producing the kind of violin in demand and supplied it.

As time went on, musical compositions changed in style, advancing by degrees towards the culminating point of nearly a century later. The simple, oft-times wondrously sweet, yet quaint effusions of the early composers for the violin, were gradually giving more and stronger indication of what was possible and likely to follow soon and in its turn, like all other things, become antiquated and old-fashioned. Undoubtedly, it was this progressive condition of the music of the period that induced Stradivari, early in his career, if not at the time he was with Nicolo Amati, to take up the study of tone calibre as a matter of essential importance, in order not only to keep pace with the times, but if possible, anticipate further advances in musical development.

It was daily becoming more evident that the qualities of refinement and sympathy would not in themselves be sufficient in an instrument with such a future as the violin seemed to have. Melodic forms were being modified, while harmony was becoming more varied and divided.

The art of appropriate phrasing was also being studied, while practical musicians were bowing to the necessity of leaving old stereotyped forms for those having more emotional qualities. In short, the violin wanted in Cremona was one of substantial power and suitable for more dramatic expression on the part of the performer. To bring forth a violin of this desirable type, Stradivari

directed his energies. With what measure of success, the whole musical world up to the present day have emphatically declared.

Now, we may ask, was the difference of tone between the violins of Stradivari and those of the other makers of the Brescian, Cremonese, Venetian, Milanese, or Neapolitan school, in consequence of the tonal difference between the upper and lower table, as supposed to have been discovered by the modern Parisian investigator? was it resulting from the correct air mass inside? the relative thickness of the tables, or we may as well include the straight and fine grain theorists, the amber varnish in the wood theorists, the wood of great age theorists, and the generations of use theorists, and lastly those who mix them altogether. If Stradivari practically worked upon one, some or all of these theories, there is still more mystery concerning the close proximity at which his pupils or assistants arrived, several of whom we might conclude were possessed of all necessary means of acquiring to the full their master's excellencies.

Just for a moment or two we may turn aside and notice the kind of variation or the distinguishing difference between the tone in the general acceptation of the term—of Antonio Stradivari and other makers, or, as time has proved, masters of their art, if not on an equal standing with him. There is frequently among musicians a disposition to set down as inferior any tone that may seem to differ in degree or kind with that of Stradivari; that is the ideal type, it must be Stradivari and no other; some have even gone so far as to say, "there is only one quality," that of Stradivari, and when other masters did not produce it, they were unable to do so; this is more than a hint at condemnation of the head of the Cremona school as having been very lax in the proper and thoughtful training of his number of pupils; this latter an almost necessary consequence of eminent rank, taken apart from the usual assistance found to be obligatory from pressure of work. If we glance over the Italian schools taken one after another,

the facts, if acknowledged, will be seen to point in other directions. Taking for instance the Milanese master, Lorenzo Guadagnini, who tells us himself that he learnt his art under Antonio Stradivari, we find distinct traces of it in his tone, the general calibre is the same and most of the fine, distinguishing features noticed in the tone produced by his master; the difference, however, is that which is peculiar to the master makers of Milan, that of a slightly less reedy emission of sound. Some have called it harder, which is not a correct description. Chords are produced with it as easily and roundly as with any other, the individual notes blend beautifully and give an impression of homogeneousness in no wise inferior to anything produced in Italy. There was no apparent difficulty in the way of Milan acquiring and cultivating the variety of Italian tone known as the Cremonese had they been so disposed; we are therefore led to infer that each place with its musical world held its own opinions as to the most satisfactory quality of tone for its purpose and considered it the best. Milan is situated in Lombardy, north-west of Cremona, and distant from it between forty and fifty miles; not a very long way at any time, but quite sufficient for each place to cultivate or indulge in any artistic or musical fancies or whims independently of the other. We find maker after maker in Milan keeping within certain limits as regards the quality of tone produced there; I do not know of one whose instruments emitted other than the Milanese quality.

We may, I think, safely assume that so far from loosely and superficially instructing his pupils, Stradivari's tuition was of a deeper, far-reaching kind than has ever been suspected. If the tone of Lorenzo Guadagnini is compared with that of the makers who were working in Milan when he arrived, it will not be difficult to perceive that the Milanese type is still retained, although much enlarged and matured, in fact become freshly developed, throwing out the additional qualities for the obtaining of which the great master of Cremona had carefully

trained his gifted pupil. All this is not in the least interfered with by the fact of Joannes Battista Guadagnini's tone differing in some respects — and more at times—with that of his father, but rather helped by it; both assert on their tickets that they were instructed by Stradivari, and both show the results of their training in that largeness and impressiveness which is so much beloved of violinists and which without doubt came from their great teacher. Josef, the son of Joannes Battista Guadagnini, appears also to have either been instructed by Stradivari or to have assisted under his personal supervision—which would amount to much the same thing. We may perceive in the tone of this maker also the influence of the great master in the same directions as are manifested in the works of his father and grandfather, they are all of the Stradivarian school.

Let us now turn in another direction. Alexandri Gagliano of Naples tells us that he too was a pupil of Stradivari, and looking at his work there is nothing about it inconsistent with his statement; his typical design is formed upon that of Stradivari, and many of his details of workmanship are such as can only have been carried out as the result of either a lengthy study, or from being under the immediate supervision of the master.

The quality of tone produced by the Neapolitans is as distinct as possible from that of Milan, it is clear, lively, suggestive of a sunny clime, and free in its emission, but leaves an impression on the ear of a lack of sufficient profundity, nearly the opposite in fact of the early Brescian school. Here the best of the Gaglianos—for it is not at all certain that there were not more than two of them assisting at different times in Stradivari's atelier —brought the same kind of improvement to Naples as the Guadagninis did to Milan, the scale was better regulated so as to give greater breadth of effect, notwithstanding the general quality—seemingly native to the place—being uninterfered with. Here then was the influence of Stradivari having taught his pupils the means whereby the particular tone quality most appre-

ciated in the locality could be brought forward in its most developed, or mature condition.

Carlo Bergonzi we shall have to consider more fully further on, and for the present only refer to him as a pupil or assistant much more in immediate connection with the atelier of Stradivari than any maker known to us. Irregular workman as he was, swayed about this way and that by matters unknown to us, he kept steadfast to the Stradivarian lines to the end. The rest of his family were either his own pupils, or they may have even been at times with his master, as they all—so far as I am acquainted with them—are of the same school. These particulars all point in one direction—that Stradivari was not anxious and made no special efforts at introducing any new kind of tone—development of that already in existence was his aim, and on this line he appears to have led his immediate or personal pupils.

There is great probability that some very clever workmen whose names are lost to us, were with Stradivari for a time, long or short, and were able to imbibe the valuable precepts enjoined similarly on the other disciples. It is not at present known whether the sons of Stradivari had pupils or assistants, the rarity of their work seems to point to the contrary; their father having been so successful from the commercial point of view, apart from the higher aspect of his career, there may have been—we might say—the usual disposition amongst sons of successful fathers to take life more easily and repose among the laurels won for them, requiring only a little caretaking. There is some possibility of Thomas Balestrieri, of Mantua, having worked for a time under Stradivari, but not as a pupil; there is much in his work suggestive of this theory. His tone quality does not belong to the Amati school, in which tradition has it he was trained. He may have gone as help to Stradivari—for loose as was his general tendency, he could work finely when the fit was on him. Whether he went or not, there remains tone quality evidence of

the strong influence of Stradivari, besides the throwing aside of the Amati traditions concerning proportions, curves and archings.

Of the other places to which personal pupils of the master went, we may take a passing glance at Genoa, a city not replete with makers of refinement, or numerous, but nevertheless with some sterling qualities. Among them and the most "Straddy" is Bernardus Calcanius; his earliest dates, if we can rely upon them, and they may prove at any moment to have been earlier than hitherto known, almost preclude the possibility of his having worked under Stradivari except as a youth. The influence of the master is, however, decidedly paramount in his work and no other tendency being noticeable, if not an immediate pupil, he took all possible pains to acquire the excellencies that were to his knowledge peculiar to Stradivari alone.

Among the Venetian makers there does not seem to be one that can—from his style and workmanship—be picked out as showing all necessary evidence of his having qualified under the great Cremonese as a personal pupil. Nevertheless there is much indication, and such as cannot be passed over, of the influence of Stradivari among the aristocracy of the business there. This was not, as in the instances of the other schools of violin making outside Cremona, in the first ten years of the century, but after the different individuals of the group of eminent Venetians must have been well known and of established reputation. In this there is some apparent indication of one if not more of the party having taken a trip to Cremona and brought back a few hints of no inconsiderable value, perhaps received personally from the master. On the other hand, if this was not the case, his works must have been brought into Venice and their merits artistically as well as acoustically well thought over. The outcome was a change, the Amati genius hitherto presiding uninterfered with, seemingly immutable, had to give way to that which was pronounced an improvement or a step higher in the progress of

the liutaro's art. As in Cremona, the Amati characteristics were too deeply rooted in the affections of the Venetians to be eradicated, and we consequently find in the designs of a few of the prominent makers the strong influence of Stradivari in conflict with that of Nicolas Amati, and the two swaying in balance with the settled convictions of the followers of Jacobus Stainer.

Having now taken a glance round at the chief centres of violin making that had during Stradivari's lifetime been strongly influenced by him, directly by means of his pupils or indirectly by the arrival there of his works, we may note that his qualities artistically or acoustically considered, while giving him a commanding position, did not reach so far as to annihilate, during competition, those of the Amatis, especially where the latter had been of long standing and followed earnestly in detail, they kept side by side as in Cremona. The influence of Stradivari beyond the borders of Italy had yet to receive its due acknowledgment from the crowds of imitators which have now become known or have pushed themselves in front of the public gaze.

CHAPTER VIII.

THE REPUTED GOLDEN PERIOD OF STRADIVARI LATE IN LIFE—HIS LATER MODIFICATIONS OF DESIGN—SIGNS OF OLD AGE APPEARING—THE HELP HE RECEIVED.

WE can now return back to Cremona, where we left the master in what might almost be termed the heydey of success, as he seems to have had full obeisance as the reigning chief among liutaros. The amount of work put forward—estimating carefully by what remains to us after the lapse of some hundred and eighty years or more—must have been possibly larger than is suspected and now might appear incredible if it were catalogued in detail, were it not for the extreme probability that minor or mere mechanical parts of the many instruments other than violins, violas, or violoncellos were effectively carried out under the supervision of Antonio Stradivari, his sons and assistants, of these probably what under the circumstances might even be termed a numerous staff.

The period 1700 to 1725 has been referred to by some writers as "the golden period" of Stradivari, not inaptly if we are to understand it in a pecuniary sense, as his income at the time was no doubt of a very satisfactory nature, but if taken from the standpoint of artistic elegance and finish in detail the master himself seems to have had some slight misgivings, as there are well-known indications in his latter days of having used some of his

early patterns, as if a desire had arisen in his mind to return to his old love.

That some signs of advancing age should not be apparent in Stradivari's work during the period of 1715 to 1725 would scarcely be expected. It is just at this time, however, that he gives the strongest evidence of being the extraordinary man that he was. In 1715 and thereabouts, a time of all others, some critics might put it, when his most magnificent gems of art were sent out into the world, he was a veteran seventy-one years, a time of life that few people would look forward to as being appropriate for executing unrivalled masterpieces, but rather as having for some time retired for final rest after a full complement of working days; here, however, was a peerless artist actually in his prime! and as busy, possibly so, as at any early times.

At 1720 to 1725 a close student of his work of hand may discern some signs of what was to follow, it might be said naturally. In the first place the purfling gradually assumes a heavier aspect, it is a trifle bolder or thicker in substance, although sent round the borders of the instrument with apparently the same masterly handling and iron nervousness of the preceding years. The edging is also a degree stouter. Occasionally the corners are made to a more obtuse angle, adding to the whole design a more stolid look, as if mere elegance was about to be thrown aside and more simplicity and grandeur were being sought for. This was not continued, the master seemed afraid of going too far towards heaviness, he therefore cautiously withdrew to his own old lines. Sometimes—possibly taking up and constructing upon some of his old and early moulds—the corners are brought out more prominently, but with more substance than in his early days; the result is delightful for the connoisseur's eye. Accompanying these minute modifications there will be noticed an increase slight and gradual in the expression of heaviness in the sound holes. If possible there is more freedom from mere symmetrical proportion, they are

placed less accurately level, one being a trifle higher than the other, this by the bye was common with him at all times, although usually with a subtlety that left them unnoticed by an ordinary observer. This slight irregularity has been sometimes misinterpreted as one of the little secrets of the master whereby he obtained his excellent sonority; "discovered" was the exclamation, and a new rule laid down on Stradivari's lines—never place your sound holes on the same level, always one a trifle higher and you will get what the master was so famous for. The result, so far, has been a disappointment which laid bare some evidence that these over zealous enthusiasts were not sufficiently acquainted with the canons of Italian art. There was another peculiarity creeping on with regard to these sound holes—that of an enlargement of the curve opposing the lower wing, at first it gave a more staid aspect to the part, there was less sprightliness and youth about it, nevertheless it was fine at times, even magnificent, there being still the same determination of purpose, that of combining maturity of elegance with strength. Afterwards, the change—and if all the works of these later years could be seen, saved from the destructive ravages of time and wear, it would be pronounced scarcely perceptible in its progressive degrees—came creeping on, old age gradually insinuating itself in the mechanical part of the design.

From 1725 to 1737 was a time forming a proportion of Stradivari's career during which, if he arouses less enthusiasm among his admirers for the "work of hand," he outbalances it by far in exciting our astonishment at the man himself. In the year 1725, he was then eighty-one years of age, and his work, regarded from the standpoint of "periods" as given, or arbitrarily laid down by critics of the first half of the present century, was what is now known as just past the "golden" or "grand" period; that is, some signs of decadence in the finish of the instruments which he sent forth were for the first time becoming apparent. It is generally believed that Stradivari was still industriously engaged in con-

structing instruments of different kinds and sizes as before, and that his time was occupied to the full in producing works in rapid succession, as in an uninterrupted stream. That the first part of this was probably quite true we can readily agree to, also that the out-put was continuous. Both, however, will need a little qualification when the surrounding circumstances are carefully weighed. Allowing the master possession of unusual mental and physical powers, with zeal unabated at the period included within the dates 1725 and 1735, it would be too much for us to believe him capable of working with the certainty and celerity of former years; with all his extraordinary abilities he would now be a less prolific worker.

This is in agreement with the number of works that have come down to us, and as the time advanced it became less and less until a veritable specimen of his latest period is extremely rare.

It has before been referred to that the sons of Stradivari worked with him for many years. They must have, from continual practice, been able to fit their own workmanship on to the designs of their father to a nicety that could not be surpassed. Their own individual designs are very seldom seen, consequent, no doubt, on so much of their time being devoted to helping their father, and until his death they must have rarely made on their own account.

There were other assistants who lent a helping hand in different branches of the work, among whom we will not omit mention of Carlo Bergonzi, a great master himself, but little inferior to Stradivari, and a good deal better than either of the sons.

The circumstances under which Carlo Bergonzi worked in the Stradivari establishment are not known; it is by no means certain that he received his early tuition in the place, but that he became an influence of considerable weight admits of no question. Whether he worked on the premises, or—his own being at one time or other next door—was an outside help no data is to

hand that we can rely on, certain it is that his talent must have been fully recognised by the younger Stradivaris as their work declares.

Many years back there was some discussion about concerning the extent to which Carlo Bergonzi helped, or what part he undertook, if it were admitted that some of the Stradivari violins of the latest period were not entirely the work of the master. There was much said for and against the possibility or probability of there being any of Carlo Bergonzi's handiwork to be seen on any of the late Strads. No one seems to have questioned the presence of the influence of Bergonzi's style in the work of Franciscus Stradivari, the eldest of the sons, who, after labouring for many years on his father's moulds and patterns, might have reasonably been tempted to take a "leaf from the book" of such a master in designing as his friend and fellow-assistant, Carlo Bergonzi.

To take any sort of hint from that wonderful, although fitful genius, Giuseppe Guarneri, working within earshot, was not to be entertained for a moment, as the style of workmanship, the calibre and quality of tone belonging to his manner, was quite opposed to Stradivarian teaching, and besides which there are no records or traditions indicating even usual social intercourse. We are therefore thrown upon our own resources in estimating any connection of Carlo Bergonzi with the late work of Antonio Stradivari. The instruments themselves will be the only guide and, without doubt, in the face of other evidence, had it been present, the best. Stradivari's work during the last ten or more years of his life was showing exactly what we should expect of the man when working at a patriarchal age. The stamp of the veteran handicraftsman may be traced not unfrequently on the works of other eminent makers of Cremona, including Andreas, Hieronymus, Nicolas, and his son Hieronymus and others down to the latest period of Cremonese art, when Laurentius Storioni was proving that if in its last struggles it was not quite dead.

The distinguishing characteristics of old age work

may be briefly summed up in a few words—heaviness in design and uncertainty of execution. Good, even brilliant, conceptions may be started on new work, but the execution of them shows weakness, or even inability to carry them out well. We will apply this as a kind of test when overlooking the specimens handed down to us as being the production of the great Cremonese master at the age of between eighty and ninety-three years of age. If doing this simply from the connoisseur's point of view, without admitting any such influences as present or past monetary value, former ownership, in short, thrusting aside all considerations of pedigree, we shall soon have to divide them into two sections, one of which will be acknowledged by all connoisseurs to be really representative of the true Stradivarian manner adhered to strictly through a long working career, but with the only fault of not quite so well being said of it. Thus the sound holes, as before referred to in the tracings, were becoming heavier at the lower part and with a tendency in other details towards ruggedness. The varnish has a thicker and less dainty aspect, although of excellent quality still, but there is an impression of heaviness. In the carving of the scroll the same character prevails, the edges of the turns are stouter and at the back the grooves down to the shell are less refined in their execution. All these little specialities of touch, but no modifications, are the natural manifestation of the peculiar physical condition of the master at a very advanced age.

Let us now turn to the other section, that over some of which there is excellent reason for disputation, over others none.

It will be readily acceded that Stradivari at no time during his career ever favoured any exaggeration of curve in the design of his sound holes, there was always present the indication of a desire for a fine balance of parts, in fact, his ideal seems always to have been that of increasing, if possible, the elegance of the Amati sound holes while adding to its substantial aspect.

In some of what we have called the second section we find a lively, fine and rich transparent varnish such as Carlo Bergonzi was particularly an adept at; on the same instrument will be sound holes, that a moment's consideration will remove any hesitation as to the design being other than Carlo Bergonzi. As this remarkable artist had several types of sound holes, and no one knows how many subtypes, at his finger ends, a little knowledge of his two most opposite ones will bring at once to mind that he must have had a hand in no inconsiderable portion of what is called Stradivari's late work, as here is found the inclining inwards of his sound holes with the smaller upper part and heavier lower end. This will be found accompanied by the square looking upper part of the waist curve, the two things being alone almost sufficient to stamp the whole as being by Carlo Bergonzi, but here pedigree has stepped in and it was always called a Stradivari.

This is the one type of sound holes which has to be placed aside for a moment; the other type is of an opposite kind and very often to be seen accompanying the longer looking pattern of Carlo Bergonzi: it is free in design, having the upper and lower wings fully developed, that is, the straight cut of the wing is of full length, this individuality coming from Stradivari.

It is this portion of the details of the design that has led so many students of the works of the Cremonese masters astray, they see the Stradivarian design, or we may call it peculiarity, and too hastily conclude as to its being the actual work of hand of the master. A little further consideration of the adjoining portions of the sound holes would bring to mind how little Stradivari was disposed towards any thinness of the opening out of the part leading from the wing to the nicks: if he had a tendency one way or the other, it would be towards more fulness, but his ideal being a beautiful equilibrium of all parts, this is clearly a point telling against the work as coming from his hand entirely. There is another part, too, that Stradivari seems to have most earnestly avoided, that of

making the top portion of the sound hole design reach over towards the centre, somewhat after the tendency of Andrea Guarneri, this causes the lower part to seem turned up more suddenly, it is, however, only by contrast between the two parts that this is so. Carlo Bergonzi's sound holes are more sprightly and vertical, and with their more mature style should not be confused with those of the preceding maker. Here, then, are two distinct types of sound holes independently of those referred to of earlier periods, to be seen attached to violins that have perhaps through several generations of owners been attributed to Antonio Stradivari, and in consequence been sold again and again for large sums. Here is evidence of there being something in a name. Had these instruments been carefully and properly analysed, with a strict regard to the habit of the master in respect of intention in design and execution at early and later periods, the mistake would not have occurred. The conclusions rushed at seem to have been that there was the proper age of the instrument, the varnish was of fine Cremonese type, the pattern and sound holes thought to be "Straddy," therefore it must be a Stradivari.

On the other hand, there is no obtainable evidence that these violins did not issue in new condition from Stradivari's atelier; we have in previous pages considered the amount of help at his elbow, and that this would be more and more called into requisition is but a reasonable conjecture: that it was actually the case is helped by the fact of violins being extant in which the age of the master is stated on the ticket—presumably written by himself. Possibly he felt some degree of pride in having accomplished, at the patriarchal age of about ninety years, work generally associated with the time and vigour of middle age. The existence of these violins, there may have been several more made than are known, has much significance, for the fact of his age being inserted may be fairly taken as indirect evidence not to be lightly put aside, that they were by himself looked upon as an accomplished work quite out of his usual way. Had he

been constantly putting forth instruments made by his own hands, there would not have been anything unusual about them, but these, with date and age marked, seem to be a declaration of the master—see—I have made a violin at the age here stated! In these there is present exactly what would be expected in such work—indication of insufficiency of the physical powers for carrying into execution the dictates of the mental. The intellect of this wonder of humanity appears to have remained unclouded to the last.

The other violins of about the same epoch, and going under the master's name, have a manner of work that ought to have been perceived as being also distinct. Mere hastiness or slovenliness of work is not identical with the effect of inability to achieve mechanical neatness. It is this slovenliness of handiwork which Carlo Bergonzi gave way to so frequently; he could, when in the humour, work beautifully; this, with his fine perception of elegance of line, was possibly the secret of his being admitted into the atelier of Stradivari and of his influence over the sons. There may have been other special particulars regarding him that helped in the matter of which there does not appear to be any record.

CHAPTER IX.

EVIDENCES IN STRADIVARI'S WORK OF OLD AGE—HIS DEATH AND BURIAL—WORK LEFT BY HIM—THE ADVANCE IN VALUE OF HIS WORK SINCE HIS DECEASE.

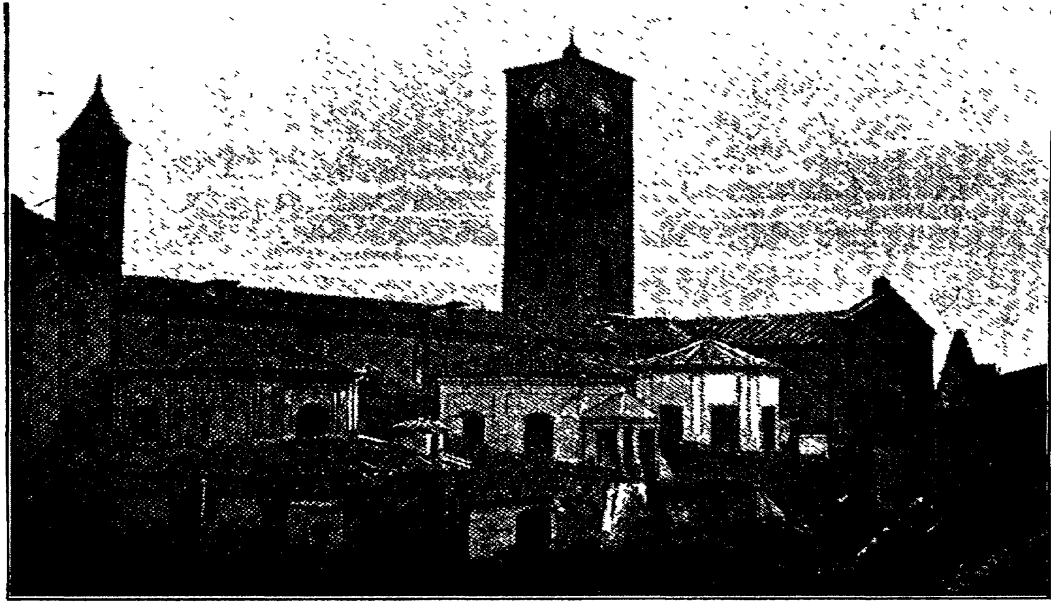
RETURNING to the analysis of the individuality of the mechanical work on the violins of the latest epoch of Stradivari, one or two further details are worth consideration. The size, style and tool work of the scroll have always been admitted to take up a large share in the estimation of evidence present for identification of authorship. In some of the late specimens of Stradivari we can see at once that the hand has become less firm, the bold turns seem to have lost much of their former vigorous expression, and although thick enough in edge are closer, and impress the connoisseur of the inability of the artificer to spend more time and attention than was absolutely necessary. The groove down the back to the shell is less refined than previously, besides being more heavily gouged at the termination. Almost in contrast with these parts there are seen on other "very late Strads" a neatly cut shell widening out a trifle and minus the thick edging; an examination of the turns of the scroll will reveal the fact of its having been gouged in quite a different manner, the declevity being more concave, the result of running the gouge along the course instead of towards the centre which was the manner of the Amatis. This hollowing out of the turns was so frequently done by

Carlo Bergonzi that it might be called his most natural mode of treatment; we can here see what evidence there is of this maker's probable help in the work of his master. If we admit the possibility of these being entirely Antonio Stradivari's handiwork, then there were more phenomenal aspects of the master's working powers left for our consideration than he had hitherto given the slightest hint of during his extraordinarily long career.

Taking therefore all the facts at our command in connection with the circumstances of the time, and the artist himself with his extended life, sifting these carefully we find the residue left is,—that his working powers gradually lessened in a perfectly natural way and that such entire work as left his hands during the last few, say six or seven years was, taken at the best, small in quantity; they came forth as from the last flickering embers of a decaying power whose influence, bequeathed to the world at large, was destined to increase indefinitely and whose secrets were left unrevealed, to be sought for earnestly, but in vain, by generation after generation.

Time, he with his hour glass, passing by the home of Antonio Stradivari in Cremona, found him full of years and honour among his own little world of friends and acquaintances, for beyond the borders of his country his name could have been known to few, and those only recognising him as a clever and successful practitioner in perhaps their own craft; his world wide fame had as yet received but a slight impetus when it became known that no more of the unapproachable gems of art were to issue from the unassuming house in the square of S. Domenico, Cremona.

Antonio Stradivari died in his 94th year at Cremona on the 18th of December, 1737, and was buried in the chapel of the Rosary in the Church of San Domerico. This church was situated exactly opposite his house, where, standing at his door—as he must have done many a time—the tomb which was to be his final resting-place came directly on the line of vision in front of him, but



THE CHURCH OF ST. DOMENICO

within the third recess or chapel past the intervening wall. So far as our scanty knowledge goes, there were no circumstances connected with his death that called for any special notice at the time. Possibly little more was remarked by the neighbours than that the aged musical instrument maker of the Piazza di San Domenico had died, and his two sons were to carry on the business. Perhaps none of them gave a thought to the immensely enhanced value of each of his works of art—or as they may have described them—the goods that he sold—that might be remaining two centuries forward.

He had lived to an almost patriarchal age, over ninety-three years. It is rare to find in the world's history a leading light among professors of science or art completing such a career of almost incessant labour both mental and physical. It is still more so to find the work of such a genius, large as was the quantity, increasing in value by "leaps and bounds" as time progressed after his decease. Most probably at the present day—supposing there to be extant as much as one-eighth of what he put forth—and that may be very much over the mark, the market value of what is recognised as his handiwork would still be a very long way above that of the whole of the work put forth throughout his life. It is on record that when he died there were ninety violins remaining unsold. There may be several good reasons for this; among them the fact that Carlo Bergonzi and Joseph Guarneri were working in rivalry at the time, and bidding for public favour less on account of fine workmanship than force and magnificence of style and general aspect, and that public attention was to some extent diverted in their direction; further, and perhaps more cogent, the recognition of the great brilliancy and largeness of Joseph Guarneri's tone, that must have seemed to the musical cognoscenti of Cremona remarkably fresh and vigorous.

But when the master had departed it was not long before the loss was seen to be irreparable. His work was sought for, there being none other of the kind to supply its place; further and further as time advanced

it was becoming more and more evident that his like was not to be hoped for, notwithstanding the favour with which the public viewed the two rivals who were destined to work for a comparatively short period. When these two at last disappeared, it was a signal for another rise in the monetary value of Stradivari's work, and which was to continue progressing indefinitely until such time when there may be signs of an approaching renaissance.

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COPIOUSLY ILLUSTRATED.

Copy of Letter received by the Author from the great 'cellist, SIGNOR ALFRED PIATTI.

Cadenabbia, Lake of Como, March 9th, 1898

DEAR SIR,—I received the book you kindly sent me on "The Technics of Violoncello Playing," which I found excellent, particularly for beginners, which naturally was your scope. With many thanks for kindly remembering an old ex-violoncello player

Believe me, yours sincerely,
ALFRED PIATTI

Copy of Letter received by the Author from the eminent 'cellist, HERR DAVID POPPER.

Budapest, February 22nd, 1898

DEAR SIR,—In sending me your book on "The Technics of Violoncello Playing" you have given me a real and true pleasure. I know of no work, tutors and studies not excepted, which presents so much valuable material, so much that is absolutely to the point, avoiding—I might say, on principle—all that is superfluous and dispensable Every earnest thinking violoncello student will in future make your book his own and thereby receive hints which will further and complete the instructions of his master

I congratulate you and ourselves most heartily on the new violoncello book With kind regards, Yours most sincerely,
DAVID POPPER

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